Contents

Page

Contents 1
Dear SHARP customer 2
Precautions For Daily Use 2
Trademarks 2
Important Safety Precautions 3
Supplied accessories 4
Preparation 5
Before turning on the power 7
Connecting external devices 8
Remote control unit 9
Part names 10
A-TV(Analogue TV)/D-TV(Digital TV)/AV input mode menu items 12
PC input mode menu items 13
Turning the TV on/off 14
Supplying electric power to the antenna 14
Initial auto installation 14
Checking signal information 14
Auto installation 15
Programme setup 15
Selecting a preset AV mode 17
Menu operation 18
Picture menu 18
Audio menu 19
ECO menu 20

Page

Setup menu 20
Option menu 22
Digital setup menu 25
Programme Guide 26
Info 26
A-TV (Analogue TV)/D-TV (Digital TV)buttons 27
Switching the analogue audio format 27
EPG 29
Picture and still image 30
Wide Mode 30
Connecting a PC 31
PC compatibility chart 32
RS-232C commands list 32
Connecting a USB device 33
Appendix 37
Specifications 38
Dimensional drawings 39
Clearing the password 40

Dear SHARP customer

Thank you for your purchase of the SHARP LCD colour TV product. To ensure safety and many years of trouble-free operation of your product, please read the Important Safety Precautions carefully before using this product.

Precautions For Daily Use

Observe the following items

Maintenance of the cabinet

- When cleaning the cabinet, use a soft cloth (made of cotton, floss, etc.) to clean gently.
  Do not use a dry or damp rag mixed with chemicals, as this could cause the ingredients of the cabinet body to deteriorate or crack.
- Be careful not to use an abrasive cloth for cleaning or clean with excessive force, as this could scratch the surface of the cabinet.
- If the cabinet is greatly soiled, clean with a soft cloth (made of cotton, floss, etc.) soaked with a small amount of diluted neutral detergent and wrung out, and then clean with a soft dry cloth.
- Because the cabinet is made of plastic, solvents such as benzene or thinner could cause it to deteriorate, or make its coating come off. Therefore do not use such solvents to clean the cabinet.
- Because plasticizer is included in the plastics, deterioration or the coating peeling off could occur when the cabinet comes into contact with some substances. Therefore keep it away from volatile substances such as insecticide. In addition, do not let it come into contact with objects made of rubber, resin, etc. for a long time.

Maintenance of the LCD panel

- Before cleaning the LCD panel, be sure to turn off the TV set and unplug the power cord from the outlet.
- When cleaning the LCD panel, use a dry and soft cloth (made of cotton, floss, etc.) to clean the surface of the LCD panel gently. For protecting the LCD panel, do not clean with a dirty cloth, detergent, or a dry or damp rag mixed with chemicals, as this could cause peeling of the panel surface.
- Be careful not to clean with an abrasive cloth or with excessive force, as this could cause the panel surface to be scratched.
- If the LCD panel is greatly soiled, clean it gently with a soft cloth (made of cotton, floss, etc.) soaked with a small amount of water (Do not clean with excessive force, so as to avoid the scratch of the panel surface).
- If dust sticks on the surface of the LCD panel, clean the panel with a commercially available cleaning brush (anti-static brush).

Trademarks

- TruSurround HD, SRS and symbol are trademarks of SRS Labs, Inc.
  TruSurround HD technology is incorporated under license from SRS Labs, Inc.

- Manufactured under license from Dolby Laboratories.
  “Dolby” and the double-D symbol are trademarks of Dolby Laboratories.

- “HDMI, the HDMI logo and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing LLC.”

- DivX® is a registered trademark of DivX, Inc., and is used under license.

- ABOUT DIVX VIDEO: DivX® is a digital video format created by DivX, Inc. This is an official DivX Certified device that plays DivX video. Visit www.divx.com for more information and software tools to convert your files into DivX video.
- ABOUT DIVX VIDEO-ON-DEMAND: This DivX Certified® device must be registered in order to play DivX Video-on-Demand (VOD) content. To generate the registration code, locate the DivX VOD section in the device setup menu. Go to vod.divx.com with this code to complete the registration process and learn more about DivX VOD.

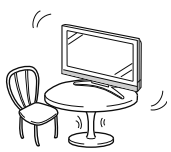
Important Safety Precautions

- Cleaning — Unplug the AC cord from the AC outlet before cleaning the product. Use a damp cloth to clean the product. Do not use liquid cleaners, aerosol cleaners or chemical cloth to clean it, as such materials may damage the product.

- Water and moisture — Do not use the product near water, such as bathtub, washbasin, kitchen sink, laundry tub, swimming pool and in a wet basement.

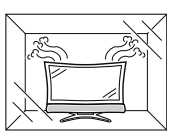
- Do not place vases or any other water-filled containers on this product.
  The water may spill onto the product causing fire or electric shock.

- Stand — Do not place the product on an unstable cart, stand, tripod or table. Doing so can cause the product to fall, resulting in serious personal injuries as well as damage to the product. Use only a cart, stand, tripod, bracket or table recommended by the manufacturer or sold with the product. When mounting the product on a wall, be sure to follow the manufacturer's instructions. Use only the mounting hardware recommended by the manufacturer.



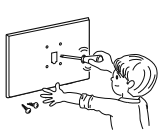
- When relocating the product placed on a cart, it must be moved with utmost care. Sudden stops, excessive force and uneven floor surface can cause the product to fall from the cart.

- Ventilation — The vents and other openings in the cabinet are designed for ventilation. Do not cover or block these vents and openings since insufficient ventilation can cause overheating and/or shorten the life of the product. Do not place the product on a bed, sofa, rug or other similar surface, since they can block ventilation openings. This product is not designed for built-in installation; do not place the product in an enclosed place such as a bookcase or rack, unless proper ventilation is provided or the manufacturer's instructions are followed.

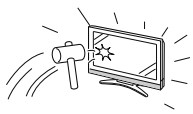


- In case the product is dropped and the cabinet is damaged, be sure to turn off the power of the product, and unplug the power cord. If you continue to use the product, it may cause fire or electric shock.

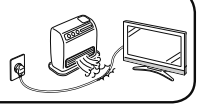
- Do not open the rear cover of the cabinet to reconstruct the circuits. There exists high voltage within the cabinet and it may cause electric shock and injury. If maintenance is required, contact your dealer.



- The LCD panel used in this product is made of glass. Therefore, it can break when the product is struck forcefully or with a sharp object. If the LCD panel is broken, be careful not to be injured by broken glass.

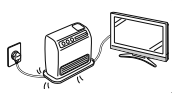


- Heat sources — Keep the product away from heat sources such as radiators, heaters, stoves and other heat-generating products (including amplifiers)

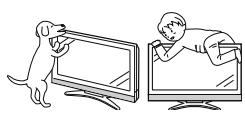


- To prevent fire, never place any type of candle or naked flames on the top or near the TV set.

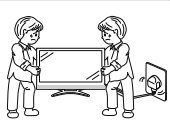
- To prevent fire or shock hazard, do not place the AC power cord under the TV set or other heavy items.



- Do not place heavy objects on this product or stand on it. Doing so could cause injury if the product overturns. Take special care near children and pets.



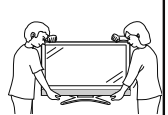
- Unplug the power cord before you move the TV set. If not unplugged beforehand, the power cord may become damaged and cause electric shock.



The LCD panel is a very high technology product with 2,073,600 pixels, giving you fine picture details.
Due to the very large number of pixels, occasionally a few non-active pixels may appear on the screen as a fixed point of blue, green or red.
This is within product specifications and does not constitute a fault.

Precautions when transporting the TV

- When transporting the TV, never carry it by holding or otherwise putting pressure onto the display.
  Be sure to always carry the TV by two people holding it with two hands — one hand on each side of the TV.



- Do not display a still picture for a long time, as this could cause an afterimage to remain.

- Install the product on the place where the AC cord can be unplugged easily from the AC outlet, or from the AC INPUT terminal on the rear of the product.

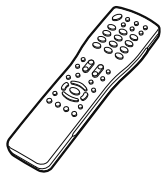
NOTE

- The above are pictures for reference only; the actual item might be different.

Supplied accessories

Make sure the following accessories are provided with the product.

Remote control unit



Page 9

"AAA" size battery (×2)

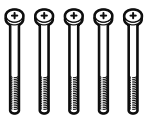
Page 9

Operation manual

Stand unit

LC-40GE220H

Stand

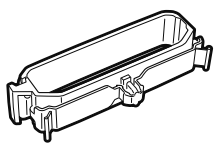


Screws (×5)

Page 5

Cable clamp

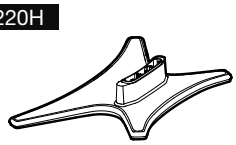
LC-46GE220H



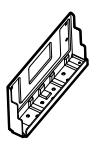
Page 7

Stand unit

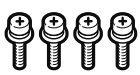
LC-46GE220H



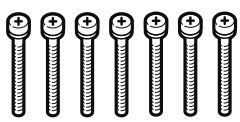
Stand



Stand post



Short screws (×4)

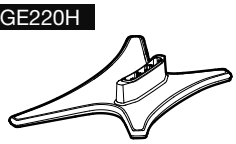


Long screws (×7)

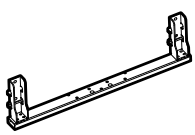
Page 6

Stand unit

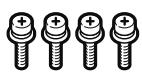
LC-52GE220H



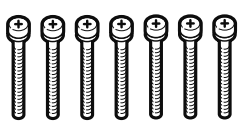
Stand



Stand post



Short screws (×4)



Long screws (×7)

Page 6

Preparation

Handling and precautions with the wall-mounted TV

- You can mount the TV on the wall using the optional bracket.
- For details, refer to the instructions supplied with the optional bracket.

CAUTION

- **This TV should be mounted on a wall only with a wall mount bracket recommended by SHARP. The use of other wall mount brackets may result in an unstable installation and may cause serious injuries.**
- **Installing the TV requires special skills that should only be performed by qualified service personnel. Customers should not attempt to do the work themselves. SHARP bears no responsibility for improper mounting or mounting that results in accident or injury.**

Using a SHARP recommended bracket to mount the TV

- You can ask a qualified service professional about using a SHARP recommended bracket to mount the TV to the wall.
- Carefully read the instructions that come with the bracket before beginning work.

NOTE

- If you want to mount the TV on the wall, use the screws provided with the wall-mount bracket to affix the bracket to the rear of the TV.

Attaching the stand

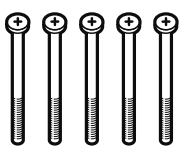
- Before attaching (or detaching) the stand, unplug the AC power cord from the AC power outlet.
- Before performing work, spread cushioning over the base area to lay the TV on. This will prevent it from being damaged.

CAUTION

- **Attach the stand in the correct direction.**
- **Be sure to follow the instructions. Incorrect installation of the stand may result in the TV falling over.**

LC-40GE220H

1 Confirm the 5 screws supplied with the stand.

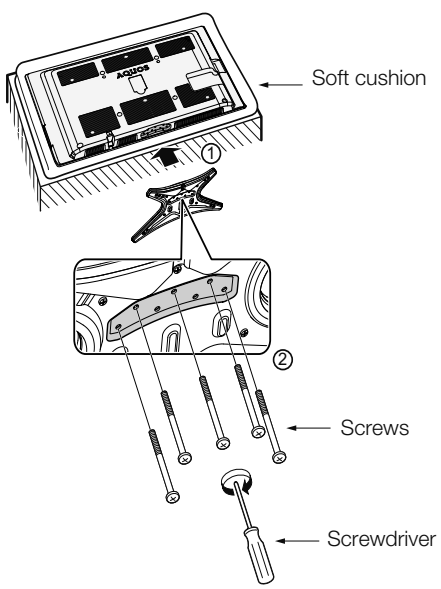


Screws (×5)
(used in step 2)

2

① Insert the stand into the openings on the bottom of the TV.

② Insert and tighten the 5 screws into the 5 holes on the rear of the stand.



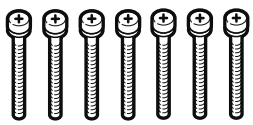
Preparation (Continued)

LC-46GE220H

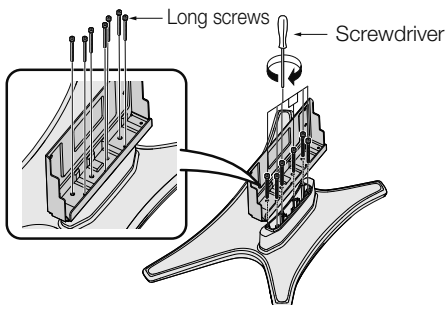
1 Confirm the 11 screws supplied with the stand.

Short screws (×4) (used in step 3)

Long screws (×7) (used in step 2)

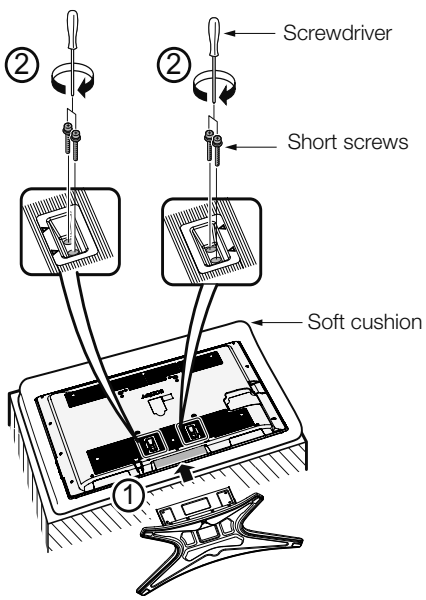


2 Attach the stand post for the stand unit onto the base as show below.



3 ① Insert the stand into the openings on the bottom of the TV.

② Insert and tighten the 4 short screws into the 4 holes on the rear of the stand.

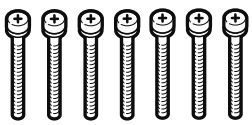


LC-52GE220H

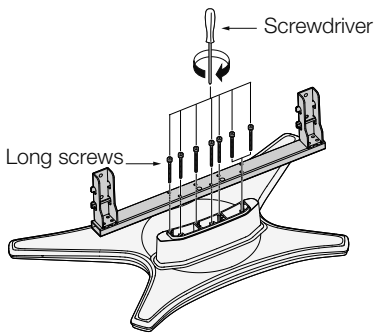
1 Confirm the 11 screws supplied with the stand.

Short screws (×4) (used in step 3)

Long screws (×7) (used in step 2)

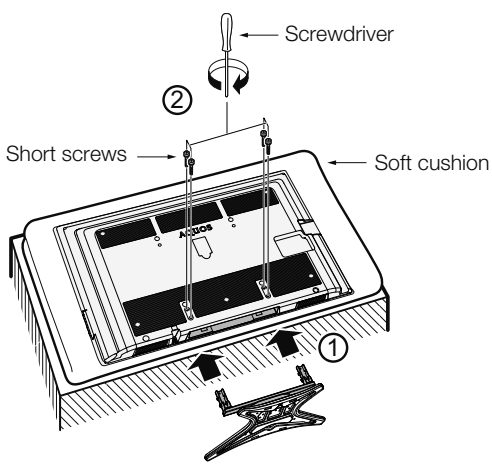


2 Attach the stand post for the stand unit onto the base as show below.



3 ① Insert the stand into the openings on the bottom of the TV.

② Insert and tighten the 4 short screws into the 4 holes on the rear of the stand.



NOTE

- To detach the stand, perform the steps in reverse order.
- Angle adjustment is not available with the LC-40GE220H/ LC-46GE220H/LC-52GE220H .

Before turning on the power

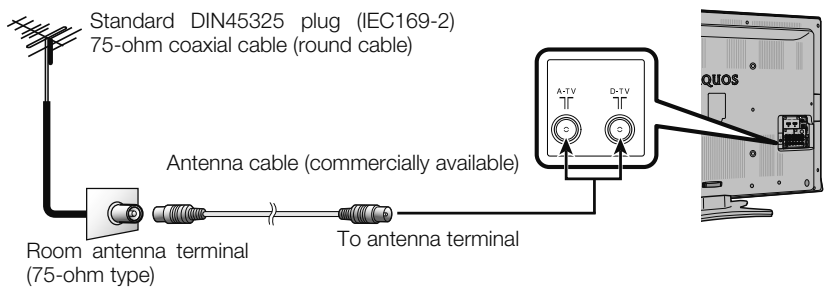
Before turning on the power

Notes on installing the TV

- Avoid direct sunlight and place the TV in a well-ventilated location.
- Place the TV in a level location.
- Do not turn on the power of the TV before connecting the AC cord.

1 **Connecting the antenna cable**

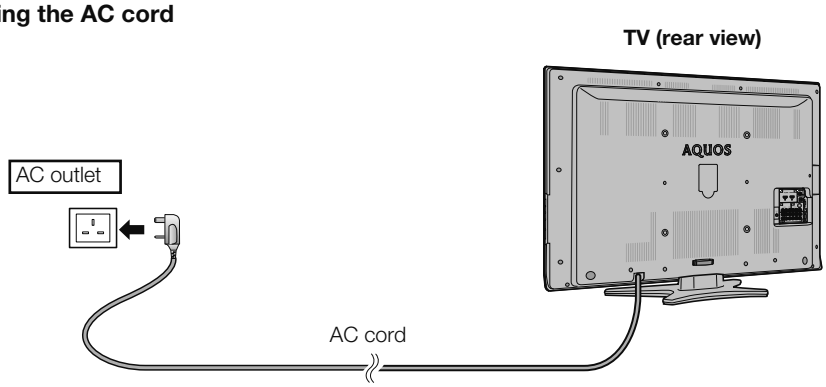
To enjoy a clearer picture, use an outdoor antenna. The following is a brief explanation of the types of connections that are used for coaxial cable.



2 **Connecting external devices**

See pages 8 for connecting antennas and external equipment, such as a VCR and DVD player.

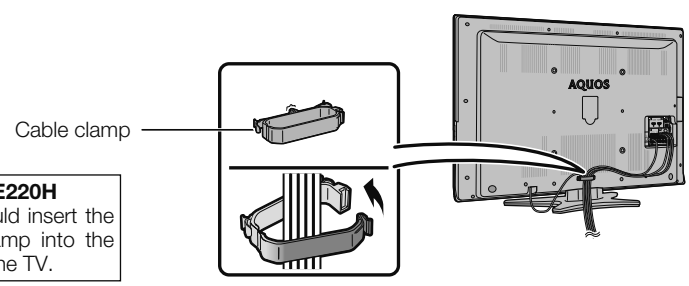
3 **Connecting the AC cord**



- Place the TV close to the AC outlet, and keep the power plug within reach.
- Disconnect the AC cord from the AC outlet if the TV will not be used for a long period of time.

4 **Bundling the cables**

As the picture illustrated, put the cable into the cable clamp for banding.



LC-46GE220H
You should insert the cable clamp into the hole on the TV.

CAUTION

- **TO PREVENT RISK OF ELECTRIC SHOCK, DO NOT TOUCH UN-INSULATED PARTS OF ANY CABLES WITH THE AC CORD CONNECTED.**

Connecting external devices

You can connect many types of external equipment to your TV, like a VCR, game console, camcorder, DVD player, Digital TV Set Top Box (STB) and PC. To view external source images, select the input source from **TV/VIDEO** on the remote control unit or **TV/VIDEO** on the TV.

CAUTION

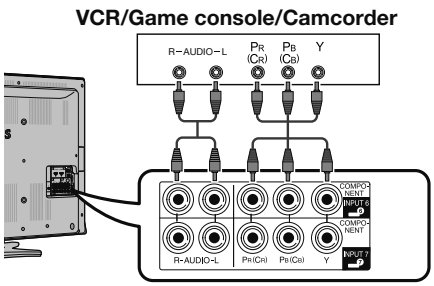
- To protect all equipment, always turn off the TV before connecting to a VCR, game console, camcorder, DVD player, Digital TV Set Top Box (STB), PC or other external equipment.
- Refer to the relevant operation manual (VCR, DVD player, etc.) carefully before making connections.

Connecting a VCR, game console or camcorder

A VCR, game console, camcorder and some other audiovisual equipment can be conveniently connected using the INPUT 4 (S-VIDEO or Composite VIDEO), INPUT 5 (Composite VIDEO), INPUT 6/INPUT 7 (Component) terminals.

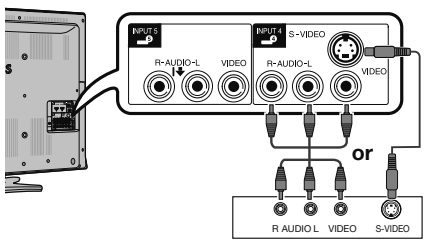
When using component cable (commercially available)

VCR/Game console/Camcorder



When using composite cable or S-VIDEO cable (commercially available)

VCR/Game console/Camcorder

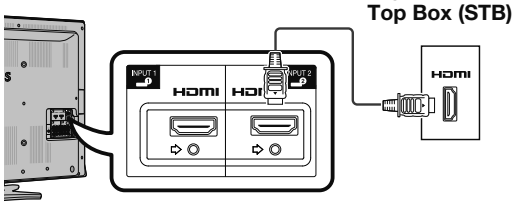


Connecting a DVD player/Digital TV Set Top Box (STB)

You can use the INPUT 1/INPUT 2/INPUT 3 (HDMI), INPUT 6/INPUT 7 (Component) terminals when connecting to a DVD player/Digital TV Set Top Box (STB) and other audiovisual equipment.

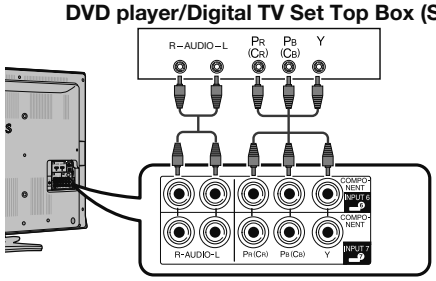
When using HDMI-certified cable (commercially available)

DVD player/ Digital TV Set Top Box (STB)



When using component cable (commercially available)

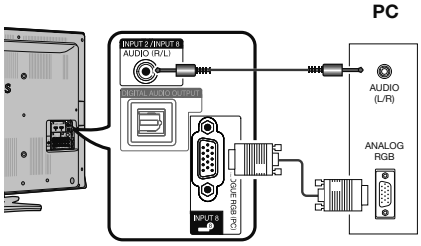
DVD player/Digital TV Set Top Box (STB)



Connecting a PC

You can use the INPUT 8 (PC) terminals when connecting to a PC. (See page 31.)

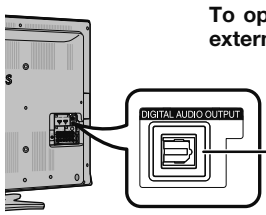
PC



Using Digital Audio Output

It is possible to output audio through the DIGITAL AUDIO OUTPUT terminal. PCM audio or Dolby Digital audio outputs from the terminal.

To optical digital input of external audio devices

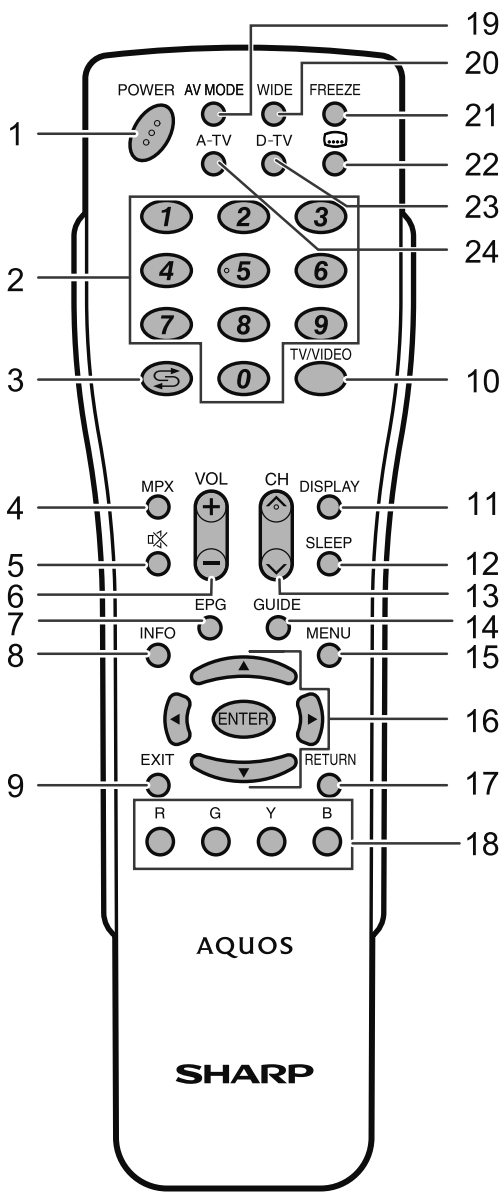


Optical fibre cable (commercially available)

NOTE

- The DIGITAL AUDIO OUTPUT terminal usually outputs the same audio from the speakers. (The audio of the content you are viewing is output from the terminal.)
- The DIGITAL AUDIO OUTPUT terminal does not output some signals, depending on devices and software.
- When using a DVI-HDMI conversion adaptor, input the Audio Signal from the AUDIO terminal of INPUT2/INPUT8. (See page 22.)

Remote control unit



1 POWER (STANDBY/ON)
To switch the power on and off. (See page 14.)

2 0 – 9
Select the channel. (See page 27.)

3 ⮌ (Flashback)
Press ⮌ to return to the previous selected channel or external input mode.

4 MPX
Select the sound multiplex mode. (See page 27.)

5 🔇 (Mute)
Press 🔇 → Mutes sound.
Press 🔇 again → Restores sound.
Mute will be cancelled after 30 minutes. However, the TV will not suddenly output loud sound as the volume level will be set to 0 automatically. Increase the volume level by pressing **VOL +**.

6 VOL + /VOL −
Set the volume.
(**VOL +**) Increase the volume.
(**VOL −**) Decrease the volume.

7 EPG
D-TV mode: To display EPG (Electronic Programme Guide) screen. (See pages 29 to 30.)

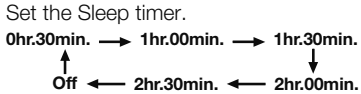
8 INFO
D-TV mode: Display the programme information. (See page 26.)

9 EXIT
Return to the default screen.

10 TV/VIDEO (INPUT SOURCE)
Select an input source. (A-TV, D-TV, INPUT1 to 8 and USB)

11 DISPLAY
Display the channel or input information.

12 SLEEP
Set the Sleep timer.



13 CH∧/CH∨
TV input mode: Select the channel.
(**CH∧**) Increase the channel number.
(**CH∨**) Decrease the channel number.

14 GUIDE
D-TV mode: Display the programme list. (See page 26.)

15 MENU
Display the menu screen.(See page 18.)

16 ▲/▼/◀/▶ (Cursor)
Select a desired item on the setting screen.
ENTER
Execute a command.

17 RETURN
MENU mode: Return to the previous menu screen.

18 Colour (R/G/Y/B)
D-TV and USB only: The coloured buttons are used to select correspondingly to the coloured items in the menu screen. (See page 15 to 16 and page 29 to 30 and page 34 to 35.)

19 AV MODE
Select an audio and video setting. (See page 17.)

20 WIDE
Change the wide image mode. (See page 30.)

21 FREEZE
Freeze a motion picture on the screen. (See page 30.)

22 💬 (Subtitle)
D-TV only: To toggle the subtitle display. (See page 25.)

23 D-TV
Press to access D-TV mode. (See page 27.)

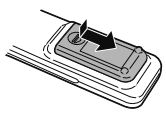
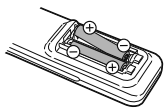
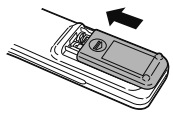
24 A-TV
Press to access A-TV mode. (See page 27.)

Remote control unit (Continued)

Inserting the battery

Before using the TV for the first time, insert two “AAA” size batteries (supplied). When the batteries become depleted and the remote control fails to operate, replace the batteries with new “AAA” size battery.

1 Open the battery cover. **2** Insert the supplied “AAA” size batteries. **3** Close the battery cover.

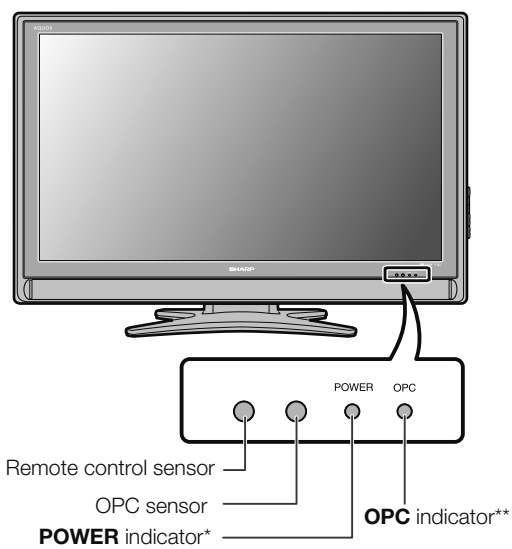
- Place batteries with their terminals corresponding to the (+) and (−) indications in the battery compartment.

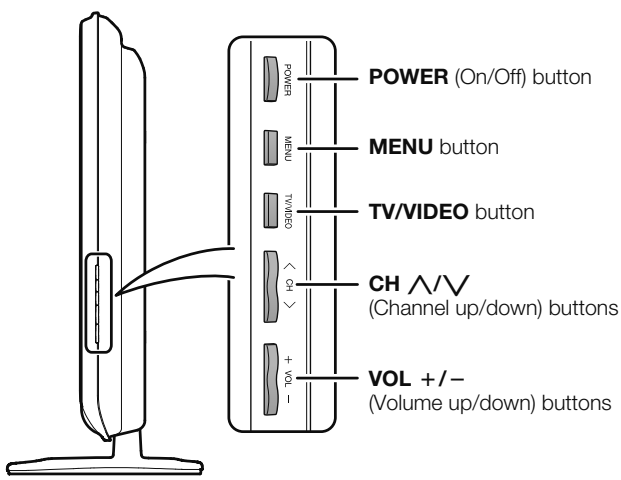
CAUTION

- Do not mix batteries of different types. Different types of batteries have different characteristics.
- Do not mix old and new batteries. Mixing old and new batteries can shorten the life of new batteries or cause chemical leakage in old batteries.
- Remove batteries as soon as they have worn out. Chemicals that leak from batteries can cause a rash. If you find any chemical leakage, wipe thoroughly with a cloth.
- The batteries supplied with this product may have a shorter life expectancy due to storage conditions.
- If you will not be using the remote control unit for an extended period of time, remove the batteries from it.
- Batteries (batteries pack or batteries installed) shall not be exposed to excessive heat such as sunshine, fire or the like.

Part names

TV (Front / Side)





* **POWER** indicator

Light off	Power off
Light (Red)	The TV is in standby mode.
Light (Green)	The TV is on.

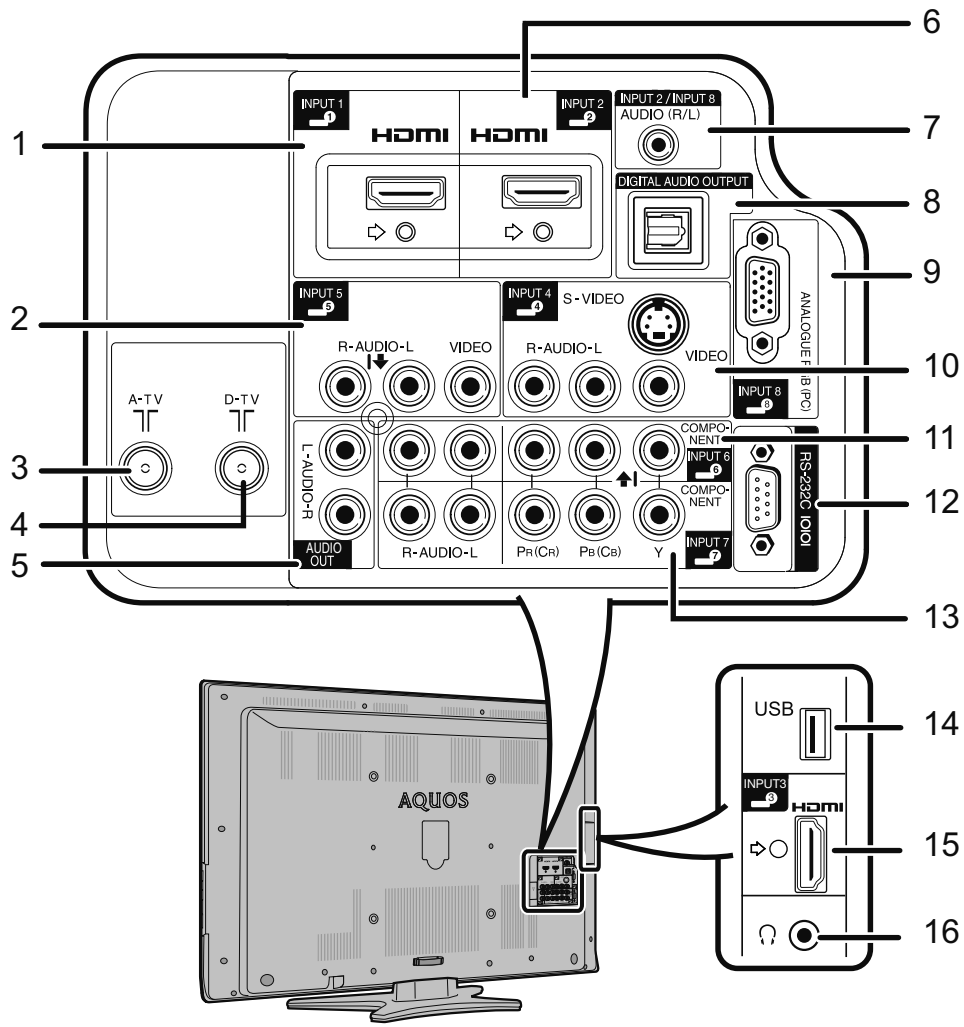
** **OPC** indicator

Light off	“Off” is selected in the OPC setting.
Lighted (Green)	“On” or “On: Display” is selected in the OPC setting.

- The illustrations and on-screen displays in this operation manual are for explanation purposes and may vary slightly from the actual operations.
- The illustrations used throughout this manual are based on LC-40GE220H.

Part names (Continued)

TV (Rear)



1 INPUT 1 (HDMI) terminal
2 INPUT 5 terminals
3 A-TV (Analogue antenna) terminal
4 D-TV (Digital antenna) terminal
5 AUDIO OUT terminals
6 INPUT 2 (HDMI) terminal*
7 INPUT2/INPUT8 (AUDIO) terminal*
8 DIGITAL AUDIO OUTPUT terminal
9 INPUT 8 (PC) terminal*
10 INPUT 4 terminals
11 INPUT 6 terminals
12 RS-232C terminal
13 INPUT 7 terminals
14 USB terminal
15 INPUT 3 (HDMI) terminal
16 Headphone jack

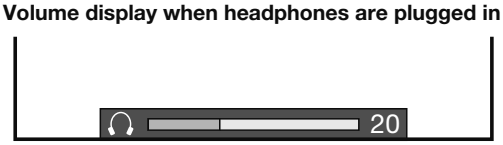
* The INPUT 2 and INPUT 8 terminals share the same analogue audio input terminal. However, the proper item must be selected in the "PC audio select" menu. (See page 16.)

• The illustrations in this operation manual are for explanation purposes and may vary slightly from the actual operations.

Regarding the headphone jack

- Use headphones with a stereo mini plug (ϕ 3.5 mm).
- Be sure to unplug headphones from the jack when they are not in use.
- The speakers do not output volume when headphones are plugged in.
- The "Audio" menu cannot be operated when headphones are plugged in.

Volume display when headphones are plugged in



A-TV(Analogue TV)/D-TV(Digital TV)/AV input mode menu items

List of A-TV/D-TV/AV menu items to help you with operations

Picture

AV mode 17
OPC (Optical Picture Control) 18
Backlight 18
Contrast 18
Brightness 18
Colour 18
Tint 18
Sharpness 18
Advanced
- Colour temp 19
- Quick shoot 19
- Film mode 19
- Active contrast 19
- 3D-Y/C 19
- Monochrome 19
- DNR 19

Reset 18

Audio

Treble 19
Bass 19
Balance 19
SRS TS HD 19
Bass enhancer 19
Reset 19

Power control

No signal off 20
No operation off 20
Ecology 20

Setup

Auto installation 15
Analogue programme setup 16
Digital programme setup 15
Child lock 20
Input skip 21
Input label 21
Position 21
HDMI auto view 21
WSS 21
4:3 mode 22
Quick start 22
Language 22
Identification 22
Reset 22

Option

Input select 22
PC audio select 22
Output volume select 23
Auto volume 23
Clear voice 23
Digital audio output 23
Audio only 23
Game play time 23
Colour system 23
DivX Reg. Code 24
Version up 24

Digital setup

Audio language 25
Subtitle language 25
Hearing impaired 25
Time zone 25
Summer time 25
OAD setup 25

NOTE

- **Some menu items may not be displayed depending on the selected input source.**

PC input mode menu items

List of PC menu items to help you with operations

Picture

AV mode 17
OPC (Optical Picture Control) 18
Backlight 18
Contrast 18
Brightness 18
Advanced
Colour temp 19
Reset 18

Audio

Treble 19
Bass 19
Balance 19
SRS TS HD 19
Bass enhancer 19
Reset 19

Power control

Power management 20
No operation off 20
Ecology 20

Setup

Input skip 21
Input label 21
Quick start 22
Language 22
Identification 22
Reset 22

Option

Input select
INPUT4 22
Output volume select 23
Auto Volume 23
Digital audio output 23
Audio only 23
Audio audio output 23
Fine sync.
Input signal 24
Auto sync. 23
H-Position 24
V-Position 24
Clock 24
Phase 24
Reset 24
DivX Reg. Code 24
Version up 24

Digital setup

Audio language 25
Subtitle language 25
Hearing impaired 25
Time zone 25
Summer time 25
OAD setup 25

NOTE

- **Some menu items may not be displayed depending on the selected input source.**

Turning the TV on/off

Turning on/off the power

- **To turn on the power**
  Press **POWER** on the TV. (After a few seconds, an image appears with sound.)
- **To turn off the power**
  Switch it off by pressing **POWER** on the TV.

Standby mode

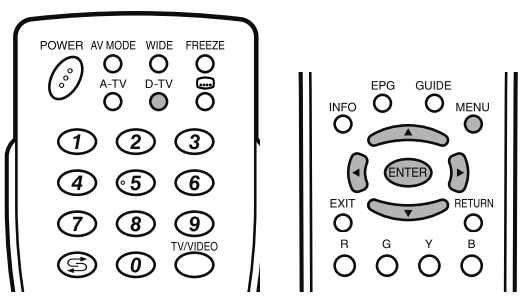
- **To standby mode**
  If the TV is switched on, you can switch it to standby mode by pressing **POWER** on the remote control.
- **Switching on from standby mode**
  From standby mode, press **POWER** on the remote control.

NOTE

- If you are not going to use this TV for a long period of time, be sure to remove the AC cord from the AC outlet.
- Minor power is consumed when the unit is in standby mode.

Supplying electric power to the antenna

When you set-up the D-TV antenna for the first time, or connect the antenna to a community antenna, you need to proceed to set the antenna by following this manual.



1 Press **D-TV** to access D-TV mode.

2 Press **MENU** and the MENU screen displays.

3 Press ◀/▶ to select “Setup”.

4 Press ▲/▼ to select “Digital programme setup” and then press **ENTER**.

5 Press ▲/▼ to select “Antenna power” and then press **ENTER**.

6 Press ◀/▶ to select “Yes” and then press **ENTER**.

Selected item	Description
Yes	Select “Yes” when your antenna is set-up and connected independently.
No	Select “No” when you do not need to supply voltage to your antenna, i.e. when your antenna is connected to a community antenna. (The factory default setting of this function is “No”.)

Initial auto installation

When the TV powers on for the first time after purchase, the initial auto installation wizard appears. Follow the menus and make the necessary settings one after another.

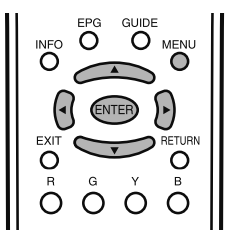
1 Press **POWER** on the TV.
- The initial auto installation wizard appears.

2 Press ▲/▼ to select the desired language, and then press **ENTER**.
Press ◀/▶ to select “HOME” or “STORE”, and then press **ENTER**.
- HOME: “STANDARD” will be the default value for the “AV mode” setting.
- STORE: “DYNAMIC (Fixed)” will be the default value for the “AV mode” setting. If the “AV mode” is changed, the TV will automatically switch back to “DYNAMIC (Fixed)” when there is no further change to TV setting for 30 minutes. When selecting “STORE”, press ◀/▶ to select “Yes”or “No” to confirm.

Press ▲/▼/◀/▶ to select “D-TV”, “A-TV” or “A-TV + D-TV”, and then press **ENTER**.
Press ▲/▼ to select the desired sound system, and then press **ENTER**.
- Sound system is selectable when the signal search is set to “A-TV” or “A-TV + D-TV” mode only.
- Auto installation will be executed.
- You do not need to do anything during the auto search.

Checking signal information

If you install a D-TV antenna for the first time or relocate it, you should adjust the alignment of the antenna to receive a good reception while checking the antenna setup screen.



1 Press **MENU** and the MENU screen displays.

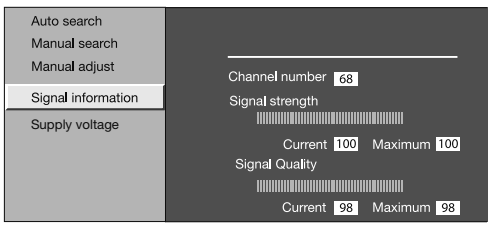
2 Press ◀/▶ to select “Setup”.

3 Press ▲/▼ to select “Digital programme setup”, and then press **ENTER**.

Checking signal information (Continued)

■ Checking signal information

Press ▲/▼ to select “Signal information”.



4 Position and align the antenna so that the maximum possible values for “Signal strength” and “Signal quality” are obtained.

NOTE

- The values of “Signal strength” and “Signal quality” indicate when to check the appropriate alignment of the antenna.

Auto installation

You can run auto installation again, even after setting up the preset channels.

1 Press **MENU** and the MENU screen displays.

2 Press ◀/▶ to select “Setup”.

3 Press ▲/▼ to select “Auto installation”, and then press **ENTER**.

4 If you have already set the password, enter it here.
- See page 20 for setting a password.

– – – –

5 Press ◀/▶ to select “Yes”, and then press **ENTER**.

6 Press ▲/▼ to select the desired language, and then press **ENTER**.
Press ▲/▼/◀/▶ to select “D-TV”, “A-TV” or “A-TV + D-TV”, and then press **ENTER**.
Press ▲/▼ to select the desired sound system, and then press **ENTER**.
- Sound system is selectable when the signal search is set to “A-TV” or “A-TV + D-TV” mode only.

You do not need to do anything during the auto search. Press **MENU** to exit.

Programme setup

Digital settings

You can reconfigure D-TV services settings automatically or manually.

1 Press **MENU** and the MENU screen displays.

2 Press ◀/▶ to select “Setup”.

3 Press ▲/▼ to select “Digital programme setup”, and then press **ENTER**. If you have already set the password, enter it here.
- See page 20 for setting a password.

– – – –

4 Press ▲/▼ to select the desired menu item, and then press **ENTER**.

5 Press ◀/▶ to select “Yes”, and then press **ENTER**.

■ Auto search (Digital)

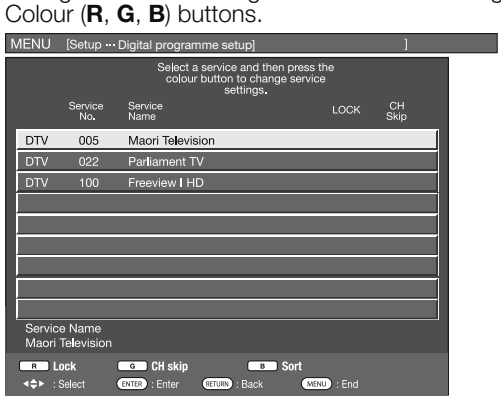
Use this menu to add new services automatically after auto installation has been completed.

■ Manual search (Digital)

Add new services within a specified frequency band.
- Press ◀/▶ to select the frequency and then press **ENTER**.

■ Manual adjust (Digital)

Configure various settings for each service using the Colour (**R**, **G**, **B**) buttons.



1 Press ▲/▼ to select desired service.

2 Press the colour button on the remote control corresponding with the item you want to reconfigure.
- Each time the colour button is pressed, you can switch the corresponding operation on/off.

Buttons for Manual adjust operation

Menu items	Remote control buttons	Description
Lock	**R**	When the service is locked, you must enter your password whenever you tune to the service.
CH Skip	**G**	Services with “Skip” are passed over when pressing ∧/∨ in the TV/remote control unit.
Sort	**B**	The item position of services can be sorted.

Programme setup (Continued)

The item position of services can be sorted

① Press ▲/▼ to select the service whose item position you want to move, and then press **B**.

DTV	005	Maori Television
DTV	022	Parliament TV
DTV	100	Freeview I HD

② Press ▲/▼ to move it to the desired position, and then press **ENTER**.

DTV	100	Freeview I HD
DTV	022	Parliament TV
DTV	005	Maori Television

③ Repeat steps ① and ② until all desired service items are sorted.

Analogue settings

■ Auto search (Analogue)

You can also automatically search by performing the procedure below. This is the same function as programme auto search in auto installation.

1 Press **MENU** and the MENU screen displays.

2 Press ◀/▶ to select “Setup”.

3 Press ▲/▼ to select “Analogue programme setup”, and then press **ENTER**.

4 If you have already set the password, enter it here.
- See page 20 for setting a password.

– – – –

5 Press ▲/▼ to select “Auto search”, and then press **ENTER**.

6 Press ◀/▶ to select “Yes”, and then press **ENTER**.
Press ▲/▼ to select the desired sound system, and then press **ENTER**.
You do not need to do anything during the auto search. Press **MENU** to exit.

■ Manual adjust (Analogue)

You can set some channel item manually.

1 Repeat steps 1 to 4 in **Auto search**.

2 Press ▲/▼ to select “Manual adjust”, and then press **ENTER**.

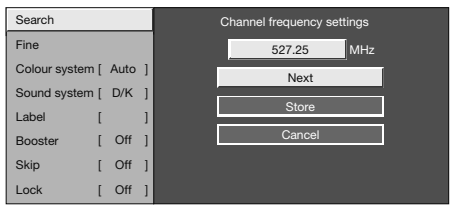
3 Press ◀/▶ to select “Yes”, and then press **ENTER**.

4 Press ▲/▼/◀/▶ to select the channel you want to edit, and then press **ENTER**.
- The selected channel information displays.

5 Press ▲/▼ to select the desired menu, and then press **ENTER**.

6 Press ▲/▼ or ◀/▶ to select the desired item or adjust the item to the desired level. Press **ENTER** if necessary.

Search
The next channel will be searched in order.



Fine
You can adjust the frequency to your desired position.

NOTE

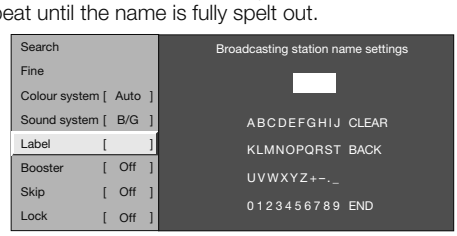
- Adjust while checking the background picture as a reference.
- Instead of pressing ◀/▶ to adjust the frequency, you can set by directly entering the frequency number of the channel with **0 — 9**.
- When setting a frequency on the “Fine” screen, the last figure of the frequency needs to be “0” or “5”.

EXAMPLE
- 179.25 MHz: Press **1** → **7** → **9** → **2** → **5**.
- 49.25 MHz: Press **4** → **9** → **2** → **5** → **ENTER**.

Colour system
Select the optimum colour system to receive. (Auto, PAL, SECAM, NTSC 3.58, NTSC 4.43, PAL-60)

Sound system (Broadcasting system)
Select the optimum sound system (Broadcasting system) to receive. (B/G, D/K, I, M)

Label
You can change individual channel names.
- Press ▲/▼/◀/▶: To select each character of the new name for the channel, and then press **ENTER**. Repeat until the name is fully spelt out.



- The name can be 5 characters or less. Select “END” to set the channel name.

Booster
Enhance the picture quality during weak signal. It is not recommended to turn on during strong signal condition. It may induced unwanted noise. (On, Off)

Skip
Channels with “Skip” set to “On” are passed over when using **CH**∧/∨ even if selected while watching the image from the TV.

Lock
You can block the viewing of any channel.

NOTE

- See “Child lock” for setting a password.
- If “Lock” is set to “On” for a channel, “Child lock has been activated” is displayed when you select the channel, and the image and sound of the channel is blocked.
- When pressing **ENTER** while “Child lock has been activated” is displayed, password input menu will be displayed. Inputting the correct password lifts the child lock temporarily until the power is turned off.

Programme setup (Continued)

■ Sort (Analogue)

Channel position can be sorted freely.

1. Repeat steps 1 to 4 in **Auto search**.
2. Press ▲/▼ to select “Sort”, and then press **ENTER**.
3. Press ◀/▶ to select “Yes”, and then press **ENTER**.
4. Press ▲/▼/◀/▶ to select the channel you want to move, and then press **ENTER**.
5. Move it to the desired position by pressing ▲/▼/◀/▶, and then press **ENTER**.
6. Repeat the steps 4 and 5 until all desired channels are sorted.

■ Erase programme (Analogue)

The individual programme can be erased.

1. Repeat steps 1 to 4 in **Auto search**.
2. Press ▲/▼ to select “Erase programme”, and then press **ENTER**.
3. Press ◀/▶ to select “Yes”, and then press **ENTER**.
4. Press ▲/▼/◀/▶ to select the channel you want to erase, and then press **ENTER**.
5. Press **ENTER** to erase the channel.
6. Repeat the step 4 and 5 until all desired channels are erased.

Selecting a preset AV mode

“AV mode” gives you several viewing options to choose from to best match the system environment, which can vary due to factors like room-brightness, type of programme watched or the type of image input from external equipment.

1. Press **AV MODE**.
   • Preset AV MODE displays.
2. Press **AV MODE** again before the mode displayed on the screen disappears.
   • You can also switch the mode in the “AV mode” menu on the “Picture” menu screen.

Selected item	Description
STANDARD	For a highly defined image in a normally bright room.
MOVIE	For a movie.
GAME	For game play.
PC	For PC. (Available only when inputting an HDMI or PC signal.)
USER	Allows the user to customise settings as desired. You can set the mode for each input source.
DYNAMIC (FIXED)	Changes the image and sound settings to the factory preset values. No adjustments are allowed.
DYNAMIC	For a clear-cut image emphasising high contrast for sports viewing.

NOTE

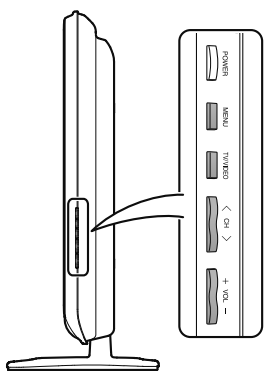
- You can select a different AV mode item for each input mode. (For example, select STANDARD for TV input and DYNAMIC for VIDEO input.)
- During PC input mode, only “STANDARD”, “PC” and “USER” can be selected under the AV mode selection.

Menu operation

1. Press **MENU** and the MENU screen displays.
2. Press ◀/▶ to select the desired menu. (Picture, Audio, ECO, Setup, Option, Digital setup)
3. Press ▲/▼ to select the desired menu item. Press **ENTER** to proceed if necessary.
4. Press ▲/▼ or ◀/▶ to select the desired item or adjust the item to the desired level. Press **ENTER** if necessary.
5. Press **EXIT** or **MENU** to exit from the menu.

■ Using the control panel of the TV

You can also operate the Menu using the control panel of the TV.
Button operations on the control panel correspond to the ones on the remote control as shown below.



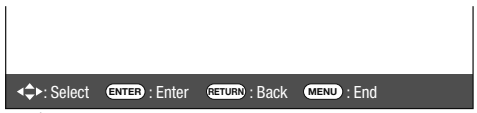
TV control panel buttons	Remote control buttons
MENU	MENU
TV/VIDEO	ENTER
CH ∧	▲
CH ∨	▼
VOL +	▶
VOL −	◀

NOTE

- Menu options differ in the selected input modes, but the operating procedures are the same.
- The screens in the operation manual are for explanation purposes (some are enlarged, others cropped) and may vary slightly from the actual screens.

About Guide Display

The Guide Display at the bottom of the screen shows operations with an On-Screen Display.



The bar above is an operational guide for the remote control. The bar will change in accordance with each menu setting screen.

Picture menu

■ OPC (Optical Picture Control) setting

You can set the TV to automatically adjust the screen to suitable backlight brightness according to the lighting conditions.

Selected item	Description
On:Display	Displays the OPC effect on the screen while adjusting the brightness of the screen.
On	Automatically adjusts.
Off	The brightness is fixed at the value set in “Backlight”.

NOTE

- Make sure no object obstructs the OPC sensor, which could affect its ability to sense surrounding light.
- In order to get a better picture quality, “OPC” and “Backlight” functions may not work when the TV set is at a relatively low temperature. It is not a problem, and these functions will be active when the temperature becomes normal.

■ Picture adjustments

Selected item	◀ button	▶ button
Backlight	The screen dims	The screen brightens
Contrast	For less contrast	For more contrast
Brightness	For less brightness	For more brightness
Colour	For less colour intensity	For more colour intensity
Tint	Skin tones become purplish	Skin tones become greenish
Sharpness	For less sharpness	For more sharpness

NOTE

- For resetting all adjustment items to factory preset values, press ▲/▼ to select “Reset”, press **ENTER**, press ◀/▶ to select “Yes”, and then press **ENTER**.

■ Advanced

Colour temp. (Colour Temperature)
Adjusts the colour temperature to give the best white image.

Selected item	Description
High **Mid-High** **Middle** **Mid-Low** **Low**	White with bluish tone ⬍ White with reddish tone

Quick shoot (Fine Motion Advanced)

Using the advanced “Quick shoot” function can view the high speed motion image more clearly.

Selected item	Description
On	Turn on “Quick shoot”.
Off	Turn off “Quick shoot”.

NOTE

- “Quick shoot” may cause image noise. If this occurs, turn the function “Off”.

Film mode
Automatically detects a film-based source (originally encoded at 24/25 frames/second, depending on the vertical frequency), analyses it then recreates each still film frame for high-definition picture quality. (On, Off)

Active contrast
Automatically adjusts the contrast of an image according to the scene. (On, Off)

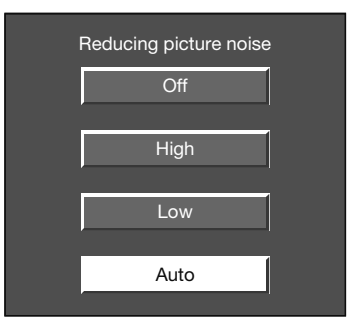
3D-Y/C
Provides high quality images with minimal dot crawl and cross colour noise. (On, Off)

NOTE

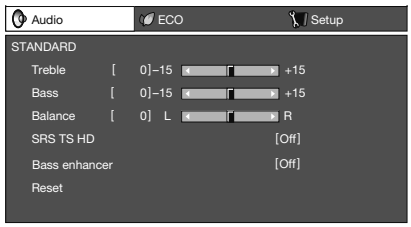
- 3D-Y/C is not selectable depending on the input signal type.
- 3D-Y/C may not operate depending on the input signal type or noisy input signal.

Monochrome
For viewing images in monochrome. (On, Off)

DNR (Digital Noise Reduction)
Reduces noise on screen and produces a clearer video image. (“Off”, “High”, “Low”, “Auto”)



Audio menu



■ Audio adjustments

Selected item	◀ button	▶ button
Treble	For weaker treble	For stronger treble
Bass	For weaker bass	For stronger bass
Balance	Decrease audio from the right speaker	Decrease audio from the left speaker

■ SRS TruSurround (TS) HD™

You can enjoy SRS TruSurround HD™ sound, the same as if you were in a movie theatre.

Selected item	Description
On	SRS TruSurround HD™ creates a high quality surround sound experience, when watching DVD movies and TV programmes broadcast in surround sound.
Off	Outputs the normal sound.

■ Bass Enhancer

When “On” is selected, the bass effect is enhanced.

- Bass Enhancer powered by SRS Labs, Inc. when SRS TS HD is selected “ON”.

NOTE

- For resetting all adjustment items to the factory preset values, press ▲/▼ to select “Reset”, press **ENTER**, press ◀/▶ to select “Yes”, and then press **ENTER**.
- The “Audio” menu is greyed out when “Output volume select” is set to “Variable”

ECO menu

■ No signal off

You can set the TV to automatically power off in about 15 minutes after the TV goes into a state of receiving no programme signals, such as the end of a broadcast day. (Enable, Disable)

- Five minutes before the power shuts down, the remaining time displays every minute.

NOTE

- "Disable" is the factory preset value.
- When a TV programme finishes, and the TV receives signal input, this function may not operate.

■ Power management (PC input mode only)

You can set the TV to automatically power off when no image is displayed on PC.

Selected item	Description
Off	• No power management • Factory preset value.
Mode1	• If no signal inputs for approximately 8 minutes, the power shuts down. • Even if you start using the PC and the signal inputs again, the TV stays off. • The TV turns on again by pressing **POWER**. (See page 14.)
Mode2	• If no signal inputs for approximately 8 seconds, the power shuts down. • When you start using the PC and the signal inputs again, the TV turns on. • The TV turns on again by pressing **POWER**. (See page 14.)

■ No operation off

You can set the TV to automatically power off when no TV operation is performed for 30 minutes or more than 3 hours.
(30 min., 3 hr., Disable)

- Five minutes before the power shuts down, the remaining time displays every minute.

NOTE

- "Disable" is the factory preset value.

■ Ecology

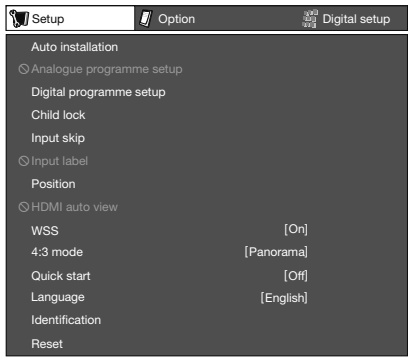
When set to "Yes", the TV activates the following power saving mode.

- "OPC" set to "On". (See page 18.)
- "No signal off" set to "Enable". (See page 20.)
- "Power management" set to "Mode1". (See page 20.)
- "No operation off" set to "3 hr.". (See page 20.)
- "Quick start" set to "Off". (See page 22.)

NOTE

- Ecology mode cannot be deactivated by selecting "No". Each setting must be changed individually to deactivate Ecology mode.

Setup menu



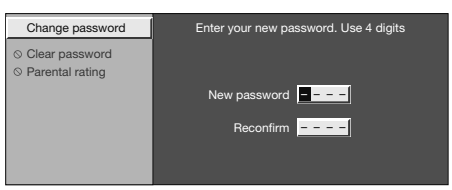
■ Child lock (A-TV and D-TV input mode only)

Allows you to use a password to protect certain settings from being accidentally changed.

Setting a password

1. Repeat steps 1 to 2 in **Menu operation**.(See page 18).
2. Press ▲/▼ to select "Child lock", and then press **ENTER**.
3. If you have already set the password, enter it here.

   – – – –
4. Press ▲/▼ to select "Change password", and then press **ENTER**.
5. Enter the 4-digit number as a password using **0 — 9**.



6. Enter the same 4-digit number as in step 5 to confirm.

NOTE

- To view a locked channel (Lock setting in Analogue programme setup "Manual adjust" is set to "On"), you must enter a password. When you select a locked channel, "Child lock has been activated" is displayed.
- Press **ENTER** to display the password input window.

Clearing the password

Allow you to clear your password.

1. Repeat steps 1 to 3 in **Setting a password**.
2. Press ▲/▼ to select "Clear password", and then press **ENTER**.
3. Press ◀/▶ to select "Yes", and then press **ENTER**.

Setup menu (Continued)

Parental rating

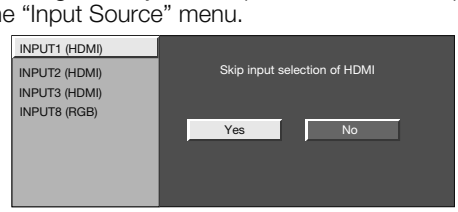
This function allows TV channels to be restricted. It prevents children from watching violent or sexual scenes that may be considered inappropriate.

1. Repeat steps 1 to 3 in **Setting a password**.
2. Press ▲/▼ to select “Parental rating”, and then press **ENTER**.
3. Press ▲/▼ to select your desired rating, and then press **ENTER**.

Selected item	Description
No block	Cancel the restriction.
Block 5-18 age and below	Select desired age to restrict. (Example) If “Block 13 age and below” is selected, programmes rated for ages of 13 or more are restricted.

■ Input skip

This setting allows you to skip the HDMI or PC input on the “Input Source” menu.



■ Input label

You can assign each input source a label as you prefer.

1. Press **TV/VIDEO** to select the desired input source.
2. Press **MENU** and the MENU screen displays.
3. Press ◀/▶ to select “Setup”.
4. Press ▲/▼ to select “Input label”, and then press **ENTER**.
5. Press ▲/▼/◀/▶ to select letters to label the input source.
   - When you want to change the input label that you have already assigned to the default name, press ◀/▶ to move to “CLEAR” on the “Input Label” screen, and then press **ENTER.**
6. Repeat the above until the name is fully spelt out, and then press **ENTER.**
   - The name can be 6 characters or less.
   - When you want to set an input source name of less than 6 characters, press **ENTER** to exit from the labelling menu.

NOTE

- You cannot change labels if the input source is A-TV and D-TV.

■ Position

For adjusting a picture’s horizontal and vertical position.

Selected item	Description
H-Position	Centres the image by moving it to the left or right.
V-Position	Centres the image by moving it up or down.
Reset	Reset position to factory preset values.

NOTE

- Adjustments are stored separately according to input source.
- Images may not be displayed properly depending on the settings and/or signals.

■ HDMI auto view (HDMI input mode only)

Selected item	Description
Enable/ Disable	Set whether or not to use WIDE MODE based on signal recognition, including an HDMI signal.

■ WSS

WSS allows a television to switch automatically among the different screen formats. (On, Off)

NOTE

- Try to set WIDE mode if an image does not switch to the correct screen format. When the broadcast signal contains no WSS information, the function will not work even if enabled.
- When receiving weak or unstable signals and for avoiding wrong estimation of the signals, it is recommended to set WSS to “Off”.

Setup menu (Continued)

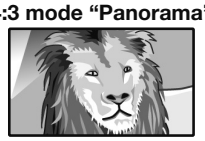
■ 4:3 mode

The WSS signal has 4:3 auto-switching that allows you to select between Panorama and Normal.

Selected item	Description
Panorama	Wide image without side bars
Normal	Normal range keeping 4:3 or 16:9 aspect ratio

WSS signal 4:3 screen

4:3 mode "Panorama"



4:3 mode "Normal"

■ Quick start

You can reduce the TV's start-up time after turning on the power with the remote control unit.

Selected item	Description
On	The TV quickly starts up from standby, more of power consumption is required during standby.
Off	Power consumption is small during standby.

■ Language

You can also select a language from setup menu. Select from 3 languages: English, Traditional Chinese and Simplified Chinese.

■ Identification

You can check the current version of the software on the screen.

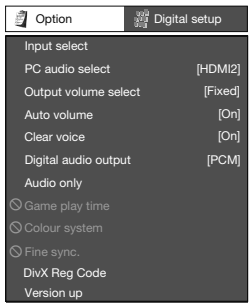
■ Reset

If complex adjustments are made and the settings cannot be restored to normal, you can reset the settings to the factory preset values.

NOTE

- If you execute "Reset", all the settings such as Picture, Audio, Programme and Language will be reset to the factory preset values.

Option menu



■ Input select

For setting the signal type of external equipment.

Input source	Selectable item
INPUT4	Auto, S-VIDEO, VIDEO

NOTE

- When the signal type is set to "Auto" and multiple video signal cables are connected, the signal type is selected in the following prioritised order:
  INPUT 4: S-VIDEO -> VIDEO
- For details on the signal type, refer to the operation manual of the external equipment.

■ PC audio select

When connecting HDMI to the INPUT2 terminal, and inputting analogue audio signals from the INPUT2/ INPUT8(AUDIO) terminal.

Selected item	Description
INPUT2 (HDMI)	When connecting devices with HDMI cable to the INPUT2 terminal, and audio signal via the HDMI terminal.
INPUT8 (RGB)	When connecting devices with HDMI cable to the INPUT2 terminal and inputting analogue audio signals from the INPUT2/INPUT8(AUDIO) terminal.

Option menu (Continued)

■ Output Volume Select

Allows you to select what controls the audio output.

1 Press **MENU** and the MENU screen displays.

2 Press ◀/▶ to select “Option”.

3 Press ▲/▼ to select “Output Volume Select”, and then press **ENTER**.

4 Press ◀/▶ to select “Fixed” or “Variable”, and then press **ENTER**.

Selected item	Description
Fixed	• Sound via speakers is adjusted with **VOL** +/– on the remote control unit or the TV. • Sound via the **AUDIO OUT** terminals is adjusted and constantly outputs.
Variable	• Sound via the **AUDIO OUT** terminals is adjusted with **VOL** +/– on the remote control unit or the TV. • Sound via speakers/headphone is muted.

NOTE

- The “Audio” menu cannot be operated when “Variable” is selected.

■ Auto volume

Different sound sources, fairly often do not have the same volume level, for example the changing from movie to the advertisements. Auto volume solves this problem and equalises the volume levels. (On, Off)

■ Clear voice

This function emphasises speech against background noise for greater intelligibility. (On, Off)

NOTE

- This function cannot be operated when “SRS TS HD” is set to “Off”.

■ Digital audio output

This function allows you to select your favourite audio output system.

Selected item	Description
PCM	The optical output format is normally in PCM.
Dolby Digital	Dolby Digital audio will be output when there is a Dolby Digital audio signal. The output will be in PCM when there is no Dolby Digital audio signal.

NOTE

- Digital audio is not output during the USB mode.

■ Audio only

When listening to music from a music programme, you can set the display off and enjoy audio only.

Selected item	Description
On	Audio is output without screen image.
Off	Both screen images and audio are output.

NOTE

- When you make operations that change the picture on the TV such as by changing the input source, the Audio only function is set to “Off”.

■ Game play time

This function displays the elapsed game time so you do not lose track of the time.
To display the elapsed time, select “GAME” under “AV mode” for the input mode of the terminal connected to the game console before starting the game.

Selected item	Description
On	When using input 1-7 and the AV MODE is change to “Game”, the elapsed time is displayed every 30 minutes.
Off	There is no display.

■ Colour system

You can change the colour system to one that is compatible with the image on the screen. (Auto, PAL, SECAM, NTSC 3.58, NTSC 4.43, PAL-60)

NOTE

- Factory preset value is “Auto”.
- If “Auto” is selected, colour system for input signal is automatically set. If an image does not display clearly, select another colour system (e.g. PAL, NTSC 4.43).
- “Colour system” is selectable only when inputting an S-VIDEO or composite signal.

■ Fine sync. (PC input mode only)

Adjusting the PC image automatically

Auto sync.

This function enables the screen to be automatically adjusted to its best possible condition when the analogue terminals of the TV and PC are connected with a commercially available RGB cable, etc.

NOTE

- Auto sync. is likely to succeed when an input PC image has wide vertical stripes (e.g. pattern with high contrast stripes, or cross-hatched).
  It may fail when an input PC image is solid (low contrast).
- Be sure to connect the PC to the TV and switch it on before starting Auto sync.

Option menu (Continued)

Adjusting the PC image manually

Ordinarily you can easily adjust the picture as necessary to change image position using Auto sync. In some cases, however, manual adjustment is needed to optimise the image.

Selected item	Description
H-Position	Centres the image by moving it to the left or right.
V-Position	Centres the image by moving it up or down.
Clock	Adjusts when the image flickers with vertical stripes.
Phase	Adjusts when characters have low contrast or when the image flickers.

NOTE

- For resetting all adjustment items to the factory preset values, press ▲/▼ to select "Reset", press **ENTER**, press ◀/▶ to select "Yes", and then press **ENTER**.
- Images may not be displayed properly depending on the settings and/or input signals.

Input signal

- Some input signals may have to be registered manually to display properly.
- The pairs of input signals (resolutions) in the list below are not distinguishable when received. In such case, you have to set the correct signal manually. After setting once, it will display when the same signal (resolution) is input again.

1280 × 768	1360 × 768

NOTE

- You can only select the "Input Signal" on the Setup menu when receiving one of the 2 input signals listed above.

■ DivX® setup

This is the function to confirm your registration code.

1. Press **MENU** and the MENU screen displays.
2. Press ◀/▶ to select "Option".
3. Press ▲/▼ to select "DivX Reg Code", and then press **ENTER**.

DivX® VOD registration

You need to visit the DivX ® main page to register your TV, then you can play DivX ® content.

DivX® VOD deregistration

You can find the deregistration code.

NOTE

- Visit www.DivX.com for more information about DivX® VOD.

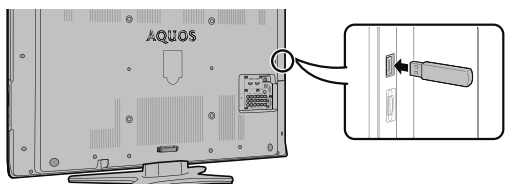
■ Version up

This function is only for SHARP qualified service personnel to update to the latest software using a USB device. Updating the software should be made through the USB terminal.

CAUTION

- If a problem arises, ask SHARP qualified service personnel.

1. Insert the USB device containing the software update file.
2. Press **MENU** and the MENU screen displays.
3. Press ◀/▶ to select "Option".
4. Press ▲/▼ to select "Version up", and then press **ENTER**.
5. Press ◀/▶ to select "Yes", and then press **ENTER**.



CAUTION

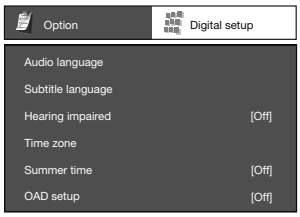
- Be sure to insert the USB device correctly into the terminal.

6. Start the update operation.
   - This operation may take a while.
7. After completing the update, please plug the AC power cord again.

CAUTION

- If the data is not compatible with the system, an error message appears on the screen. Repeat steps 3 and 4 after pressing **ENTER**.
- When an error message displays, check to see if:
  - The USB device is inserted firmly.
  - There is only one software update file in the USB memory.
  - No data for updating the system exists in the USB memory.
  - The software update file is broken.
  - The software update file is not compatible with your TV's software.

Digital setup menu



■ Selecting the audio language

Set up to two preferred multi audio languages to display if the audio languages are available.

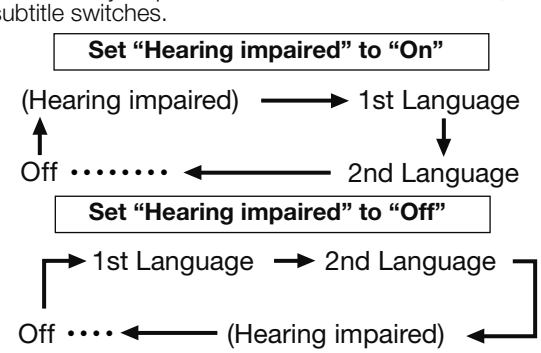
1. Press **MENU** and the MENU screen displays.
2. Press ◀/▶ to select “Digital setup”.
3. Press ▲/▼ to select “Audio language”, and then press **ENTER**.
4. Press ▲/▼ to select “1st Language” or “2nd Language”, and then press **ENTER**.
5. Press ◀/▶ to select the desired language, and then press **ENTER**.

NOTE

- This function depends on audio lanugage information from broadcasters.

■ Switching subtitle languages

Each time you press 💬 on the remote control, the subtitle switches.



■ Displaying subtitles for the hearing impaired

You can display subtitles for the hearing impaired in the broadcast if the subtitle languages are available.

1. Press MENU and the MENU screen displays.
2. Press ◀/▶ to select “Digital setup”.
3. Press ▲/▼ to select “Hearing impaired”, and then press ENTER.
4. Press ◀/▶ to select “On”, and then press ENTER.

■ Selecting subtitle language

1. Press **MENU** and the MENU screen displays.
2. Press ◀/▶ to select “Digital setup”.
3. Press ▲/▼ to select “Subtitle language”, and then press **ENTER**.
4. Press ▲/▼ to select “1st Language” or “2nd Language”, and then press **ENTER**.
5. Press ◀/▶ to select the desired language, and then press **ENTER**.

NOTE

- If subtitles for the selected language are not included in a received broadcast, subtitles will not be shown for that language.

■ Time zone

This function enables you to select your local time zone.

1. Press **MENU** and the MENU screen displays.
2. Press ◀/▶ to select “Digital setup”.
3. Press ▲/▼ to select “Time zone”, and then press **ENTER**.
4. Press ◀/▶ to select the desired time zone and then press **ENTER**.

- This function lets you select the right time zone in case the time displayed in the EPG does not match the local time of your area.

■ Summer time

When the summer time is set to “On”, the Standard Time is plus one hour. (Auto, On, Off)

■ OAD setup

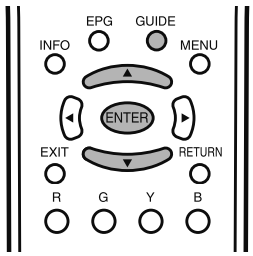
- This function is for automatically download the data for the version update software over digital broadcasts when the “OAD setup” is set to “On”.
- To download, follow the instructions when the download message appears during a digital broadcast.

CAUTION

- **Do not disconnect the AC cord when the software upgrade is in progress, as this may cause the upgrade to fail. If problem arises ask a qualified service personnel before the software upgrade period expires.**

Programme Guide

You can check the current schedule of D-TV events and view detailed information about current events.



1 Press **GUIDE** to display the programme guide list.

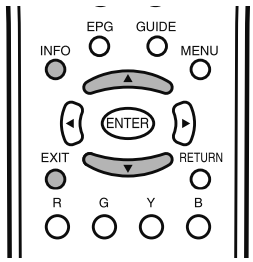
2 Press ▲/▼ to display your desired programme, and then press **ENTER**.

- When you press **ENTER**, the TV jumps to the channel.

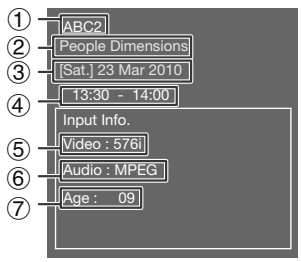
3 Press **R** to view programme information.

4 Press **RETURN** or **MENU** to exit.

Info



While watching D-TV you can check the extended programme information on the screen using **INFO** on the remote control.



General INFO screen

① Service name

② Title

③ Date for the current programme

④ Time for the current programme

⑤ Video system

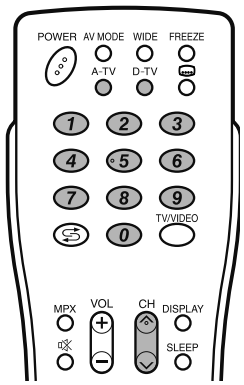
⑥ Audio system

⑦ Parental rating

- If there is more information, pressing ▲/▼ allows you to go to the next page or return to the previous page.
- You can cancel this info by pressing **INFO** or **EXIT**.

A-TV (Analogue TV)/D-TV (Digital TV)buttons

Use the following buttons on the remote control to operate the menu.



A-TV: Press to switch to analogue TV mode. After switching from digital TV or external input mode to analogue TV mode, the TV jumps to the most recently viewed analogue channel.

D-TV: Press to switch to digital TV mode. After switching from analogue TV or external input mode to digital TV mode, the TV jumps to the most recently viewed digital TV channel.

When you watch the TV for the first time

When the TV powers on for the first time after purchase, perform the auto installation.

A-TV (Analogue TV)

You can run the auto installation to set channels automatically.

1. To watch the analogue TV, select “Auto installation” from Setup menu. (See page 15.)
2. After setting the channels, you can select a channel using **CH** ∧/∨ or **0 – 9** on the remote control unit.

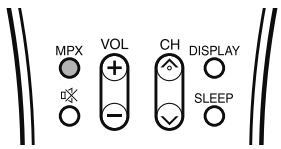
D-TV

When the TV accesses to D-TV mode for the first time, you need to run the auto search. To scan all available services in your area, follow the procedures below.

1. To watch D-TV broadcasts, select “DTV” from auto installation menu. (See page 15.)
2. After setting the channels, you can select a channel using **CH** ∧/∨ or **0 – 9** on the remote control unit.

Switching the analogue audio format

You can switch between multiple audio modes when watching a multiple audio or stereo broadcast programme.

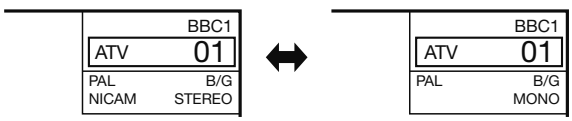


In the NICAM TV broadcasts

When receiving a stereo signal

Each time you press **MPX**, the mode switches between NICAM STEREO and MONO.

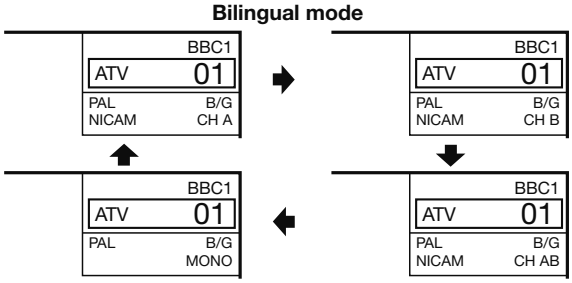
Stereo mode



When receiving a bilingual signal

Each time you press **MPX**, the mode switches among NICAM CH A, NICAM CH B, NICAM CH AB and MONO.

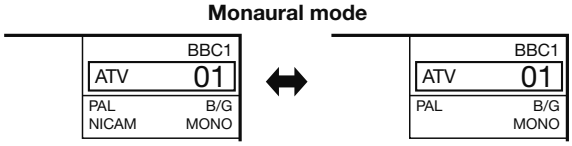
Bilingual mode



When receiving a monaural signal

Each time you press **MPX**, the mode switches between NICAM MONO and MONO.

Monaural mode

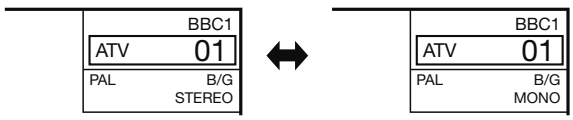


Switching the analogue audio format (Continued)

In the TV mode of A2 TV broadcasts

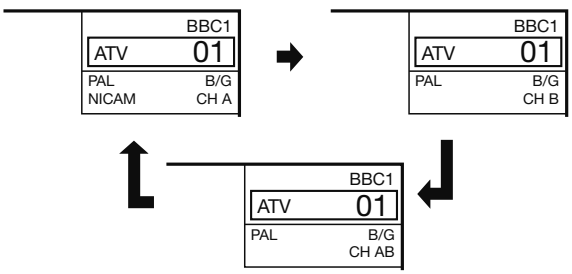
When receiving a stereo signal
Each time you press **MPX**, the mode switches between STEREO and MONO.

Stereo mode



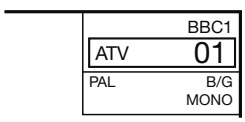
When receiving a bilingual signal
Each time you press **MPX**, the mode switches among CH A, CH B and CH AB.

Bilingual mode



When receiving a monaural signal
When you press **MPX**, “MONO” displays.

Monaural mode



NOTE

- “BBC1”, “01” and “PAL” are tentative network name, channel and colour system.

EPG

EPG setup

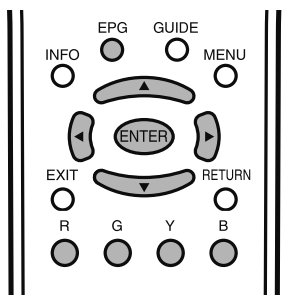
What is an EPG?

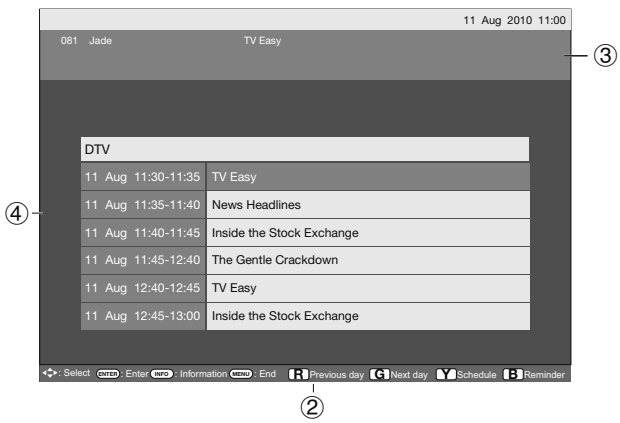
An “EPG (Electronic Programme Guide)” is a programme schedule, which is displayed on the TV screen. The EPG is broadcasted together with D-TV. The TV screen shows the EPG when the viewer presses **EPG** on the remote control, provided that the TV is receiving the digital broadcasting signal. The EPG enables you to search for a programme, do timer view the programme schedule in detail.

Basic Operation

Display the EPG screen

① Press **EPG**.




11 Aug 2010 11:00
081 Jade
TV Easy
③
④
DTV
11 Aug 11:30-11:35 TV Easy
11 Aug 11:35-11:40 News Headlines
11 Aug 11:40-11:45 Inside the Stock Exchange
11 Aug 11:45-12:40 The Gentle Crackdown
11 Aug 12:40-12:45 TV Easy
11 Aug 12:45-13:00 Inside the Stock Exchange
: Select ENTER: Enter INFO: Information MENU: End R Previous day G Next day Y Schedule B Reminder
②

② Press **R/G** to select the time span you want to search.
③ Press ◀/▶ to select the desired service.
④ Press ▲/▼ to select the desired programme.

Close the EPG screen

⑤ Press **EPG** again or **MENU** to exit.

NOTE

• The time displayed on the EPG is information sent by the TV station.

Reminder timer setting

You can schedule a reminder for future programmes. Channel will automatically change on time as scheduled.

1 Press **EPG**.

2 Press ▲/▼/◀/▶/**R/G** to select the programme you want to watch.

3 Press **B** to set reminder time.

Reminder	
Service Name	002 ABC TV Sydney
Hour	18
Minute	00
Mode	Once
Date	Tue. 22
Month	June

4 Press **ENTER** to save reminder timer.

• “Timer Save Success” will display.

NOTE

• “Timer Overlap” will display if same time is set twice.
• “Timer Past” will display if past time is set.

5 Press **ENTER** to display the reminder schedule list.

REMINDER LIST			
Programme Name	Time	Date	Service Name
Jazz Festival	18:00	Tue. 22 June	002 ABC TV Sydney

6 Press **MENU** or **EPG** to exit.

EPG (Continued)

Viewing the reminder schedule list

1. Press **EPG**.
2. Press **Y** to display the reminder schedule list.
3. Press ▲/▼ to display next or previous programmes in schedule list.
4. Press **MENU** or **EPG** to exit.

Cancelling the reminder timer setting

1. Press **EPG**.
2. Press **Y** to display the reminder schedule list.
3. Press ▲/▼ to select a programme you want to cancel.
4. Press **R** to delete a programme from reminder list.
5. Press **MENU** or **EPG** to exit.

Picture and still image

You can freeze a motion picture on the Display.

1. Press **FREEZE**.
   - A still image displayed on the screen. The still image is one frame captured from a moving image at the movement you press **FREEZE**.
2. Press **FREEZE** again to exit from still image.

NOTE

- The still image automatically goes out after 30 minutes.
- When this function is not available, “No still image display available” will appear.
- During PC input mode, still image function will not function.

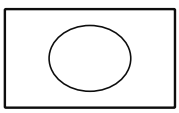
Wide Mode

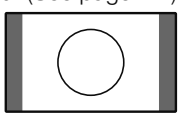
Auto Selection

If you set “WSS” and “4:3 mode” in the Setup menu, the optimum WIDE mode is automatically chosen for every broadcast containing the WSS information.

“WSS” menu
To enable Auto Selection, set “WSS” in the Setup menu to “On”. (See page 21.)

“4:3 mode” menu
To set the type of the wide screen, select “Panorama” or “Normal” in the 4:3 mode menu. (See page 22.)


4:3 mode set to “Panorama”


4:3 mode set to “Normal”

NOTE

- If the broadcast signal contains no WSS information, Auto Selection will not function even when the WSS option is enabled.

Manual Selection

You can select different picture sizes that account for the kind of each picture.

1. Press **WIDE**.
   - The WIDE MODE menu displays.
   - The menu lists the wide mode options selectable for the type of video signal currently received.
2. Press **WIDE** or ▲/▼ while the WIDE MODE menu displays on the screen.
   - As you toggle down the options, each mode is immediately reflected on the TV.

Selected item	Description
Normal	For 4:3 “standard” pictures. A side bar appears on each side.
Zoom14:9	For 14:9 letterbox pictures. A thin side bar appears on each side, and you may also see bars on the top and bottom with some programmes.
Panorama	In this mode the picture is progressively stretched toward each side of the screen.
Full	For 16:9 squeeze pictures.
Cinema16:9	For 16:9 letterbox pictures. Bars may appear on the top and bottom with some programmes.
Cinema14:9	For 14:9 letterbox pictures. Bars may appear on the top and bottom with some programmes.
Underscan	Display with an “Underscan” image only when receiving a 720p signal. Display with the High-Definition image adjusted optimally. Noise may appear on the edge of the screen with some programmes.
Dot by Dot	Display an image with the same number of pixels on the screen (only when receiving 1080i/1080p signal).

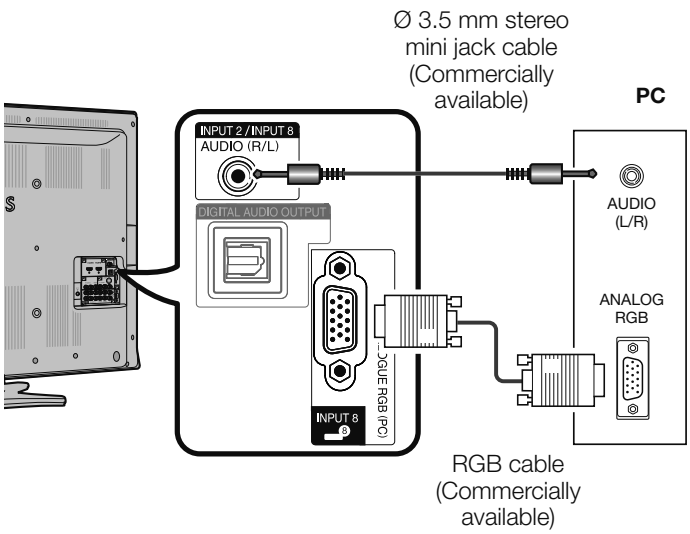
NOTE

- Some picture size may not be displayable depending on the input signal.

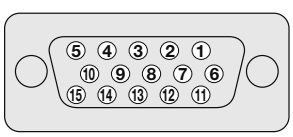
Connecting a PC

Use the PC terminals to connect a PC.

Analogue Connection



Signal names for 15-pin mini D-sub connector



Pin No.	Signal name	Pin No.	Signal name	Pin No.	Signal name
①	R	⑥	GND (Ground)	⑪	Not connected
②	G	⑦	GND (Ground)	⑫	SDA
③	B	⑧	GND (Ground)	⑬	HD
④	Not connected	⑨	+5V	⑭	VD
⑤	CSYNC	⑩	GND (Ground)	⑮	SCL

NOTE

- Macintosh adaptor may be required for use for some Macintosh computers.
- Refer to page 30 for a list of PC signals compatible with the TV.

PC compatibility chart

Resolution		Horizontal Frequency	Vertical Frequency	VESA Standard
VGA	640 × 480	31.5 kHz	60 Hz	✔
SVGA	800 × 600	37.9 kHz	60 Hz	✔
XGA	1024 × 768	48.4 kHz	60 Hz	✔
WXGA	1280 × 768	47.8 kHz	60 Hz	✔
	1360 × 768	47.7 kHz	60 Hz	✔
SXGA	1280 × 1024	64.0 kHz	60 Hz	✔
	1400 × 1050	65.3 kHz	60 Hz	✔

NOTE

- This TV has only limited PC compatibility, correct operation can only be guaranteed if the video card conforms exactly to the VESA 60Hz standard. Any variations from this standard will result in picture distortions.

DDC is a registered trademark of Video Electronics Standards Association. Power Management is a registered trademark of Sun Microsystems, Inc. VGA and XGA are registered trademarks of international Business Machines Corp.

RS-232C commands list

Commands

- Commands not indicated here are not guaranteed to operate.

CONTROL ITEM	COMMAND	PARAMETER	CONTROL CONTENTS
POWER SETTING	POWR	0___	POWER OFF (STANDBY)
INPUT SELECTION A	ITGD	____	INPUT SWITCHING (TOGGLE)
	ITVD	____	A-TV (CHANNEL FIXED)
	IDTV	____	D-TV (CHANNEL FIXED)
	IAVD	*___	INPUT1–8 (1–8)
CHANNEL	DCCH	**__	A-TV DIRECT CHANNEL (1–99)
	CHUP	____	A-TV CHANNEL UP
	CHDW	____	A-TV CHANNEL DOWN
	DTVD	***_	D-TV DIRECT CHANNEL (1-999)
	DTUP	____	D-TV CHANNEL UP
	DTDW	____	D-TV CHANNEL DOWN
INPUT SELECTION B	INP4	0___	INPUT4 (Auto)
	INP4	2___	INPUT4 (S-VIDEO)
	INP4	3___	INPUT4 (VIDEO)
AV MODE SELECTION	AVMD	0___	TOGGLE
	AVMD	1___	STANDARD
	AVMD	2___	MOVIE
	AVMD	3___	GAME
	AVMD	4___	USER
	AVMD	5___	DYNAMIC (Fixed)
	AVMD	6___	DYNAMIC
	AVMD	7___	PC

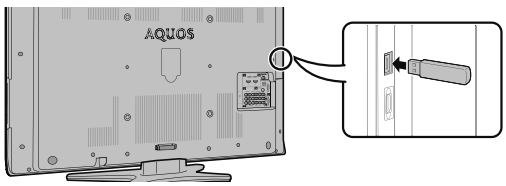
CONTROL ITEM	COMMAND	PARAMETER	CONTROL CONTENTS
VOLUME	VOLM	**__	VOLUME (0–60)
POSITION	HPOS	***_	H-POSITION (AV) (–10~10)
	HPOS	***_	H-POSITION (PC) (0~180)
	VPOS	***_	V-POSITION (AV) (–20~20)
	VPOS	***_	V-POSITION (PC) (0~120)
	CLCK	***_	CLOCK (0~180)
	PHSE	***_	PHASE (0~15)
WIDE MODE	WIDE	0___	TOGGLE (AV)
	WIDE	1___	NORMAL (AV)
	WIDE	2___	ZOOM 14:9 (AV)
	WIDE	3___	PANORAMA (AV)
	WIDE	4___	FULL (AV)
	WIDE	5___	CINEMA 16:9 (AV)
	WIDE	6___	CINEMA 14:9 (AV)
	WIDE	7___	NORMAL (PC)
	WIDE	9___	FULL (PC)
	WIDE	10__	DOT BY DOT (AV/PC)
	WIDE	11__	UNDERSCAN (AV)
MUTE	MUTE	0___	TOGGLE
	MUTE	1___	MUTE ON
	MUTE	2___	MUTE OFF
SURROUND	ACSU	0___	SRS TS HD TOGGLE
	ACSU	1___	SRS TS HD ON
	ACSU	2___	SRS TS HD OFF
AUDIO CHANGE	ACHA	____	TOGGLE
SLEEP TIMER	OFTM	0___	OFF
	OFTM	1___	SLEEP TIMER 30 MIN
	OFTM	2___	SLEEP TIMER 1 HOUR
	OFTM	3___	SLEEP TIMER 1 HOUR 30 MIN
	OFTM	4___	SLEEP TIMER 2 HOUR
	OFTM	5___	SLEEP TIMER 2 HOUR 30 MIN

NOTE

- If an underbar (_) appears in the parameter column, enter a space.
- If an asterisk (*) appears, enter a value in the range indicated in brackets under CONTROL CONTENTS.

Connecting a USB device

Connect a USB device to the TV as shown below.



- The TV automatically switches to the USB mode when a USB device is inserted in the USB terminal.
- Depending on the USB device, the TV may not be able to recognise the contained data.
- Use only alphanumeric characters for naming files.
- File names over 80 characters (may vary depending on character set) may not be displayed.
- Do not connect and disconnect a USB device from the TV repeatedly.

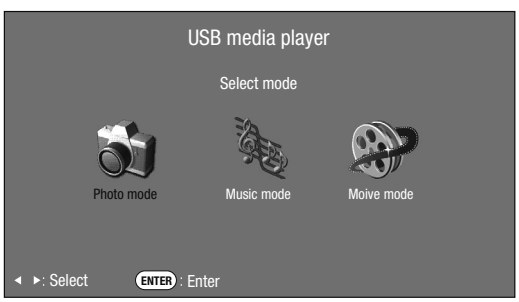
USB Movie and Photo viewer/Music Player

In this mode, you can enjoy viewing photos and listening to music and viewing videos from external USB devices. Select “USB” from the “Input Source” menu to enter this mode.

NOTE

- You cannot enter this mode when there is no USB device connected to the TV.
- “Wide mode” is fixed during the USB mode.

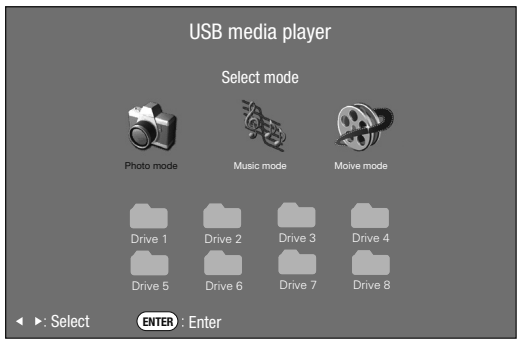
■ Selecting modes and devices



1 Press ◄/► to select between “Movie mode”, “Music mode” and “Photo mode”.

2 Press ▲/▼/◄/► to select the drive where you want to find your files.

3 Press **ENTER.**



NOTE

- You do not need to select the drive in step 2 when there is only one drive in the connected USB device.
- 16 is the maximum number of drives that can be displayed.

Movie mode

1 Press ◄/► to select “Movie mode”, and then press **ENTER**.

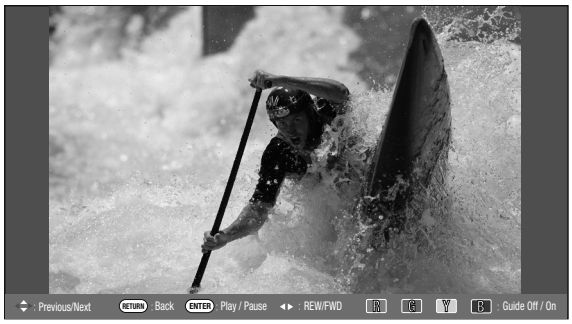
2 Press ▲/▼ to select the desired folder or directory, and then press **ENTER**.

3 Press ▲/▼ to select the desired movie.

Buttons for Movie mode

Buttons	Description
ENTER	Display the movie in full screen.
▲/▼ (Cursor)	Select a desired item.
◄/► (Cursor)	Page up/down.
Return	Return to the mode list.

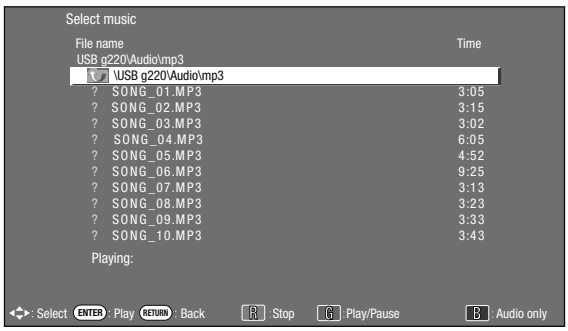
■ Viewing movie



Buttons for full screen display operation

Buttons	Description
ENTER	Play/Pause the movie.
▲ (Cursor)	Go to the previous file.
▼ (Cursor)	Go to the next file.
► (Cursor)	The FWD speed changes every time you press ►. After playing to the end, the player goes to the next file and starts to play.
◄ (Cursor)	The REW speed changes every time you press ◄. After going back to the beginning, the player starts to play the same file.
Return	Return to the movie list screen.
B button	Reveal/hide the guide display.
R button	Each time you press **R** button on the remote control, the subtitle switches.
G button	Each time you press **G** button on the remote control, the audio switches.
Y button	Each time you press **Y** button on the remote control, the VIDEO switches.

Music mode



1 Press ◄/► to select “Music mode”, and then press **ENTER**.

2 Press ▲/▼ to select the desired folder, and then press **ENTER**.

3 Press ▲/▼ to select the desired music, and then press **ENTER**.

Buttons for music mode

Buttons	Description
ENTER	When selecting a music file: Play the music.
▲/▼ (Cursor)	Select a desired item.
◄ (Cursor)	Page up.
► (Cursor)	Page down.
Return	Return to the mode list.
R button	Stop music.
G button	Play/Pause music.
B button	Audio only.

NOTE

- When there are invalid music files, the **X** mark will be displayed for the file.
- The displayed play time may differ slightly from the actual play time depending on the files.

Photo mode

■ Viewing thumbnails

1 Press ◀/▶ to select “Photo mode”, and then press **ENTER**.

2 Press ▲/▼/◀/▶ to select the desired folder, and then press **ENTER**.

3 Press ▲/▼/◀/▶ to select the desired photo.

Buttons for thumbnail operations

Buttons	Description
ENTER	Display the photo in full screen.
▲/▼/◀/▶ (Cursor)	Select a desired item.
B button	Slide show.
R button	Page up.
G button	Page down.
Y button	Selecting BGM.

NOTE

- When there are invalid photo files, the **X** mark will be displayed for the file.
- You can see the file name, shooting date, file size and pixel size of the selected photo in the lower-left corner of the screen (shooting date is only available in the EXIF file format).

■ Viewing photos in full screen

Buttons for full screen display operation

Buttons	Description
◀/▶ (Cursor)	Go to the previous/next photo in the same directory.
Return	Return to the thumbnail selection screen.
R button	Rotate the photo by 90 degrees to the left.
G button	Rotate the photo by 90 degrees to the right.
B button	Reveal/hide the guide display.

NOTE

- Rotating photos only applies to the temporarily selected item and this setting is not saved.

■ Selecting BGM (Background Music)

1 Press ◀/▶ to select “Photo mode”, and then press **ENTER**.

2 Press **Y** button, and press ▲/▼ to select the desired folder, and then press **ENTER**.

3 Press▲/▼ to select the desired music, and then press **Y** button.

4 Press **RETURN** to return to thumbnail selection screen, and press ▲/▼/◀/▶to select the desired folder, and then press **ENTER**.

5 Press ▲/▼/◀/▶ to select the desired photo, and then press **B** button (Silde show) , then BGM playing with the photo.

NOTE

- BGM function is available only when the slide show is on.

List of files compatible with USB mode

USB device	USB Memory, USB card reader (Mass Storage class)
File system	FAT/FAT32/NTFS
Photo file format	JPEG (.jpg) (DCF2.0 compliant)
Music file format	MP3 (.mp3) Bitrate: 32 k, 40 k, 48 k, 56 k, 64 k, 80 k, 96 k, 112 k, 128 k, 160 k, 192 k, 224 k, 256 k, 320 kbps Sampling frequency: 32 k, 44.1 k, 48 kHz

Video file format						
File extension	**File type**	**Video decoder**	**Resolution**	**Audio decoder**	**Frame rate (fps)**	**Bit rate (Mbsp)**
*.avi	AVI	Divx 3.11/4/4.12/5.x/6	1920×1080	MP3/Dolby Digital plus	6-30	8
		Xvid	1920×1080		6-30	8
		H.264	1920×1080		6-30	20
		MPEG2	1920×1080		6-30	8
*.mkv	MKV	H.264	1920×1080	MP3/Dolby Digital plus	6-30	20
		MPEG2	1920×1080		6-30	8
		MPEG1	1920×1080		6-30	8
*.mp4	MP4	Divx 3.11/4/4.12/5.x/6	1920×1080	MP3/Dolby Digital plus	6-30	8
		Xvid	1920×1080		6-30	8
		H.264	1920×1080		6-30	20
*.vob	VOB	MPEG2	1920×1080	MP3/Dolby Digital plus	24/25/30	20
.mpg/.mpeg	PS	MPEG2	1920×1080	MP3/Dolby Digital plus	24/25/30	20
		MPEG1	1920×1080		24/25/30	20
.rm/.rmvb	RM	RM codec	1280×720	Real Audio	24/25/30	10
.ts/.trp/*.tp	TS	H.264	1920×1080	MP3/Dolby Digital plus	6-30	20
		MPEG2	1920×1080		24/25/30	20
*.divx	Divx	Divx 3.11/4/4.12/5.x/6	1920×1080	MP3/Dolby Digital plus	6-30	20
*.dat	DAT	MPEG2	1920×1080	MP3/Dolby Digital plus	6-30	8
		MPEG1	1920×1080		6-30	8

NOTE

- Progressive format jpeg files are not supported.
- Files in USB 1.1 devices may not be played properly.
- Operation using USB hubs is not guaranteed.
- The compatibility of USB HDDs may not be guaranteed.
- Some video file formats may not be played depending on the file.
- Files may not be playable depending on the bitrate.

Appendix

Troubleshooting

The problems described below are not always caused by malfunctions. Check the TV again before having the TV serviced.

Problem	Possible Solution
• No power.	• Check if you pressed **POWER** on the remote control unit. (See page 14.) If the indicator on the TV lights up red, press **POWER**. • Is the AC cord disconnected? • Has the power been turned on? (See page 14.)
• Unit cannot be operated.	• External influences such as lightning, static electricity, etc., may cause improper operation. In this case, operate the unit after first turning the TV power off or unplugging the AC cord and re-plugging it in after 1 or 2 minutes.
• Remote control unit does not operate.	• Is battery inserted with polarity (+, −) aligned? (See page 9.) • Is battery worn out? (Replace with new battery.) • Are you using it under strong or fluorescent lighting? • Is a fluorescent light shining on the remote control sensor?
• Picture is cut off.	• Is the image position correct? (See page 21.) • Are screen mode adjustments such as picture size made correctly? (See pages 21,24,30.)
• Strange colour, light colour, or dark, or colour misalignment.	• Adjust the picture tone. (See page 18-19.) • Is the room too bright? The picture may look dark in a room that is too bright. • Check the colour system setting. (See pages 23.) • Check the input signal setting. (See page 24.) • Check the HDMI auto view setting. (See page 21.)
• Power is suddenly turned off.	• The unit's internal temperature has increased. Remove any objects blocking the vent or clean. • Check the ECO setting. (See page 20.) • Is the sleep timer set? (See page 9.)
• No picture.	• Is the connection to external equipment correct? (See page 8.) • Has the input signal setup been performed correctly after connection? (See page 14.) • Is the correct input selected? • Is the picture adjustment correct? (See page 18-19.) • Is the antenna connected properly? (See page 7.) • Is "On" selected in "Audio only"? (See page 23.)
• No sound.	• Is the volume too low? (See page 9.) • Make sure that headphones are not connected.
• The TV sometimes makes a cracking sound.	• This is not a malfunction. This happens when the cabinet slightly expands and contracts according to changes in temperature. This does not affect the TV's performance.

Troubleshooting-Digital broadcasting

The error message about reception of broadcast

The example of an error message displayed on a screen	Error code	Possible Solution
• Failed to receive broadcast.	**E202**	• Check the antenna cable. Check that the antenna is correctly setup.
• No broadcast now.	**E203**	• Check the current broadcast.

Cautions regarding use in high and low temperature environments

- When the unit is used in a low temperature space (e.g. room, office), the picture may leave trails or appear slightly delayed. This is not a malfunction, and the unit will recover when the temperature returns to normal.
- Do not leave the unit in a hot or cold location. Also, do not leave the unit in a location exposed to direct sunlight or near a heater, as this may cause the cabinet to deform and the LCD panel to malfunction.
  Storage temperature: −20°C to +60°C.

Specifications

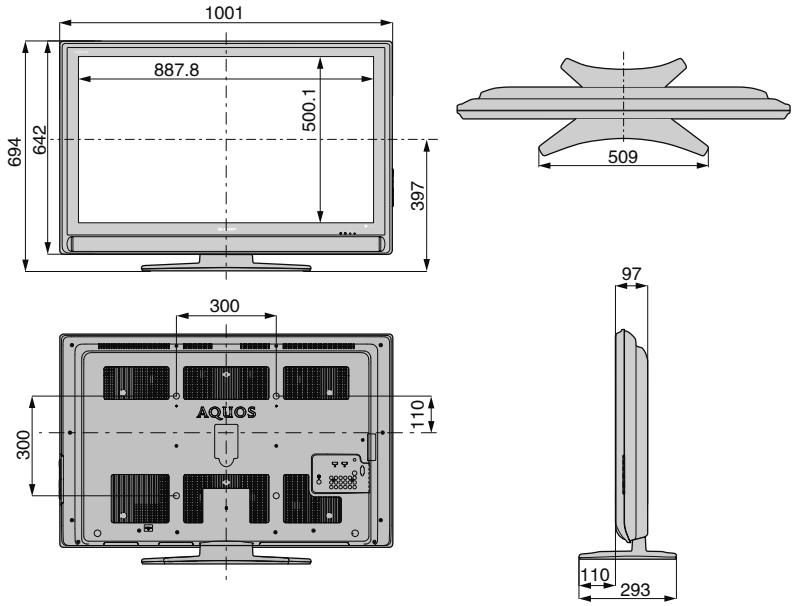
Item \ Model				LC-40GE220H	LC-46GE220H	LC-52GE220H
LCD panel				ASV & BLACK TFT PANEL	X-GEN PANEL	
Resolution				2,073,600 pixels (1920 × 1080)		
Video Colour System				PAL/SECAM/NTSC 3.58/NTSC 4.43/PAL 60		
TV Function	TV- Standard		Analogue	PAL: B/G, D/K, I SECAM: B/G, D/K, K/K_1 NTSC:M		
			Digital	DMB-T/H		
	Receiving Channel		VHF/UHF	44.25—863.25 MHz		
			CATV	S1—S41ch (including Hyperband)		
	Digital terrestrial broadcast			470 MHz - 862 MHz		
	TV-Tuning System			Auto Preset 99 ch		
	STEREO/BILINGUAL			NICAM: B/G, I, D/K A2 stereo: B/G		
Viewing angles				H : 176° V : 176°		
Audio amplifier				10 W × 2		
Speakers				10 × 4 cm 2pcs		
Terminals	Rear		A-TV (Analogue antenna)	UHF/VHF 75 Ω DIN type		
			D-TV (Digital antenna)	UHF/VHF 75 Ω DIN type		
			INPUT 1	HDMI (HDMI input) (480P, 576P, 720P/50Hz, 720P/60Hz, 1080I/50Hz, 1080I/60Hz, 1080P/24Hz, 1080P/50Hz, 1080P/60Hz)		
			INPUT 2	HDMI (HDMI input) (480P, 576P, 720P/50Hz, 720P/60Hz, 1080I/50Hz, 1080I/60Hz, 1080P/24Hz, 1080P/50Hz, 1080P/60Hz), AUDIO in (common use with INPUT 8) (ϕ 3.5 mm jack)		
			INPUT 4	S-VIDEO in, VIDEO in, AUDIO in		
			INPUT 5	VIDEO in, AUDIO in		
			INPUT 6	COMPONENT in (480I, 576I, 480P, 576P, 720P/50Hz, 720P/60Hz, 1080I/50Hz, 1080I/60Hz), AUDIO in		
			INPUT 7	COMPONENT in (480I, 576I, 480P, 576P, 720P/50Hz, 720P/60Hz, 1080I/50Hz, 1080I/60Hz), AUDIO in		
			INPUT 8 (PC input)	15 pin mini D-sub, AUDIO in (common use with INPUT 2) (ϕ 3.5 mm jack)		
			AUDIO OUT	Audio Output		
			RS-232C	9 pin D-sub male connector		
			DIGITAL AUDIO OUTPUT	Optical Digital Audio Output		
	Side		USB	USB 2.0		
			INPUT 3	HDMI (HDMI input) (480I, 480P, 576I, 576P, 720P/50Hz, 720P/60Hz, 1080I/50Hz, 1080I/60Hz, 1080P/24Hz, 1080P/50Hz, 1080P/60Hz)		
			Headphone	ϕ 3.5 mm stereo		
OSD language				English/Simplified Chinese/Traditional Chinese		
Power Requirement				AC 110 — 240 V, 50 Hz		
Power Consumption				170 W (0.8 W Standby)	200 W (0.8 W Standby)	250 W (0.8 W Standby)
Weight			without stand	15.2 kg	18 kg	24.1 kg
			with stand	17.0 kg	21 kg	27.6 kg
Operating Temperature				0°C — 40°C		

• As a part of policy of continuous improvement, SHARP reserves the right to make design and specification changes for product improvement without prior notice. The performance specification figures indicated are nominal values of production units. There may be some deviations from these values in individual units.

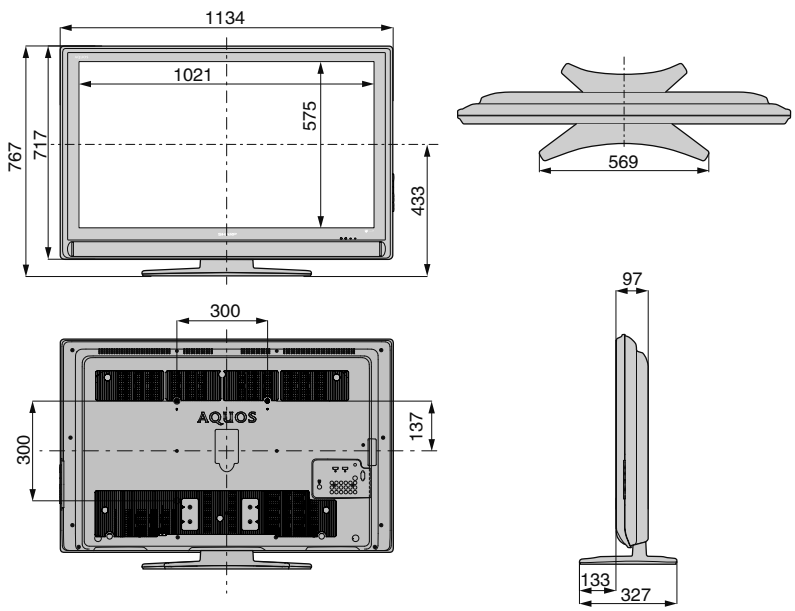
Dimensional drawings

Unit: mm

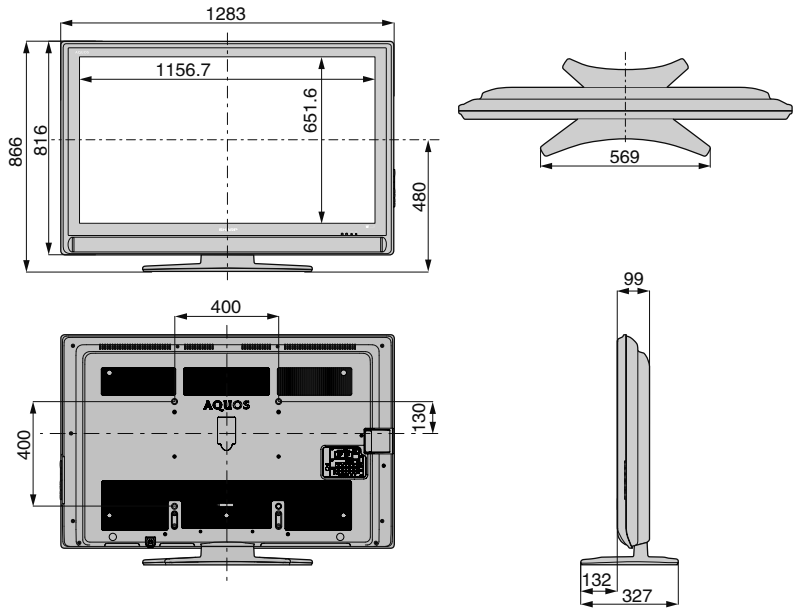
LC-40GE220H



LC-46GE220H

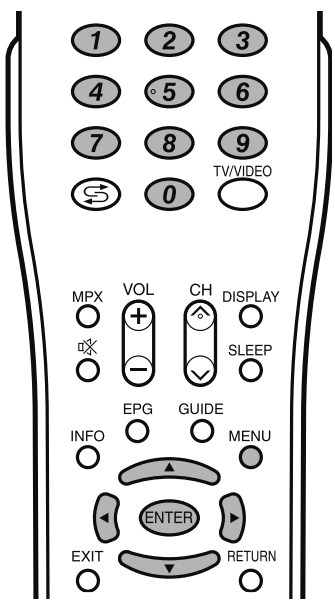


LC-52GE220H



Clearing the password

If you forget the password, clear the password using the following procedures.



1. Press **MENU** to display the MENU screen, and then press ◀/▶ to select “Setup”.
2. Press ▲/▼ to select “Child lock”, and then press **ENTER** and the password input screen display.
3. If you enter “3001” using **0 – 9**, the “Child lock” setting menu will be displayed.
4. Enter the 4-digit number as a password using **0 – 9**. The new password is now set.

The Password is | | | | | .

NOTE

- As a precautionary measure, make a note of your password above, remove it from this manual, and keep it in a familiar place.